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December, 1976

Blue Jay

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BLUE JAY

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ADDENDUM — CARIBOU MOUNTAINS

In the article, "Additional Bird and Mammal Observations in the Caribo Mountains, Alberta", which appeared in the September 1976 issue of "The Blu Jay", pp. 176-177, the second sentence under the heading "Arctic Loon" p. 17 is incomplete. It should read: "I found a pair of these loons with *a* young*ster* i northeastern Alberta *about 160 miles* from Margaret Lake in 1971 (Hohn, Can Field Naturalist 1972, 86: 372).

The italicized words were omitted in the printed text, which gives th erroneous impression that loons of this species had been found breeding in th Caribou Mountains. — *E. O. Hohn.*

OF NATURALISTS AND CROSS-COUNTRY SKIS*

E. F. BOSSENMAIER, Manitoba Dept. of Renewable Resources and Transportation Services, Winnipeg, Man.

The winter life-style of many self-propelled prairie people has gone through a drastic change over the past three years. Back in the 60's, the mere suggestion of such change would have produced incredulous stares. However, this change did occur and it was due entirely to the blossoming of Nordic skiing from Scandinavia on the Prairies. No group of people has experienced this turnabout of life-style more so than naturalists, i.e., those who have a certain awe and reverence for natural environments.

Most naturalists, prior to the winter of 1970/1971, spent from November to March reminiscing about the past snow-free season and planning for the next. Although the urge to continue outdoor activities at a steady pace through the winter was there it was rarely strong enough to overcome the obvious discomforts. Some hardier types ventured out a few times each winter but even their activities were curtailed by the elements.

There is no escaping the fact that humans on foot are no match for the outdoors in winter. Even when the temperature is tolerable and the air is still, a person can trudge only so far through deep snow before exhaustion sets in. Snowshoes make going easier, but for most people snowshoeing has little or no innate appeal. Therefore naturalists, for all thir deep commitment and dedication to the outdoors, made very few tracks in prairie snow, prior to 1970.

This situation changed dramatically with the advent of cross-country skiing. All the reasons for not being outdoors in winter suddenly disappeared. Twenty below was no longer unbearably cold; snow now aided rather than hindered travel; and winds were just as likely to be refreshing as bone-chilling. A cross-country skier, dressed moderately, can remain outdoors all day in the heart of winter and still be comfortable . . .

Moving effortlessly on cross-country skis, one could almost believe man and skis evolved together over the ages. It is an odd society that promotes winter travel by machine rather than cross-country skis. Still, the ideal trail for the lone cross-country skier is a power-toboggan track under an inch or so of new snow.

Snow in its limitless variations is a fascinating substance that never ceases to intrigue the cross-country skier. Travelling 10 or more miles a day through various plant communities, the skier makes many contacts with animals and their sign. These contacts are easier to interpret during winter because sight is not obscured by leaves or a dull background as in summer observations, and most activities are recorded in the snow. Besides, winter residents are both few in number and kind and tend to lead uncomplicated lives compared to the complex fauna of summer.

On the trail you may come across a snowshoe rabbit that has fallen prey to a winged predator and then, farther on, specks of blood mark the spot where a vole's future was decided by a weasel. Random thinking ceases abruptly as a Ruffed Grouse bursts from its snow roost just inches from the tip of your left ski. You observe that a snow-roosting grouse is not the

---

*Condensed from *Conservation Comment*, Manitoba Dept. of Renewable Resources and Transportation Services. Nov., 1973.

easy prey one might think. On diving into the snow it tunnels several inches before coming to rest. Any subsequent disturbance near the roost or strange shadow cast over the bird produces the startling blast-off of a snow-shrouded grouse.

You stop for a moment and three deer cross the trail about 100 yards ahead, browsing as they move along slowly in response to the lay of the land and the bush. Pondering these observations, it soon becomes clear that survival is the dominant theme in the winter world of wildlife.

A prairie winter can be a tough adversary and the thought of survival is never far below the surface of a cross-country skier's mind. The skier soon learns that it is wiser to roll with winter's punch than to meet it head on. Stay in the trees and avoid the wind; absorb the warmth of the sun; escape snow drifting that bares the ground and fills in return trails. On sunny, windless days, head for the open fields and lakes and enjoy the windpacked snow and the freedom to roam anywhere. Pattern your skiing behaviour after wildlife behaviour — react to the weather and snow in such a way that you minimize discomfort. Don't fight the elements — blend in with them. Have several favourite areas with different features so that after reading the elements you can select the best area for the existing conditions . . .

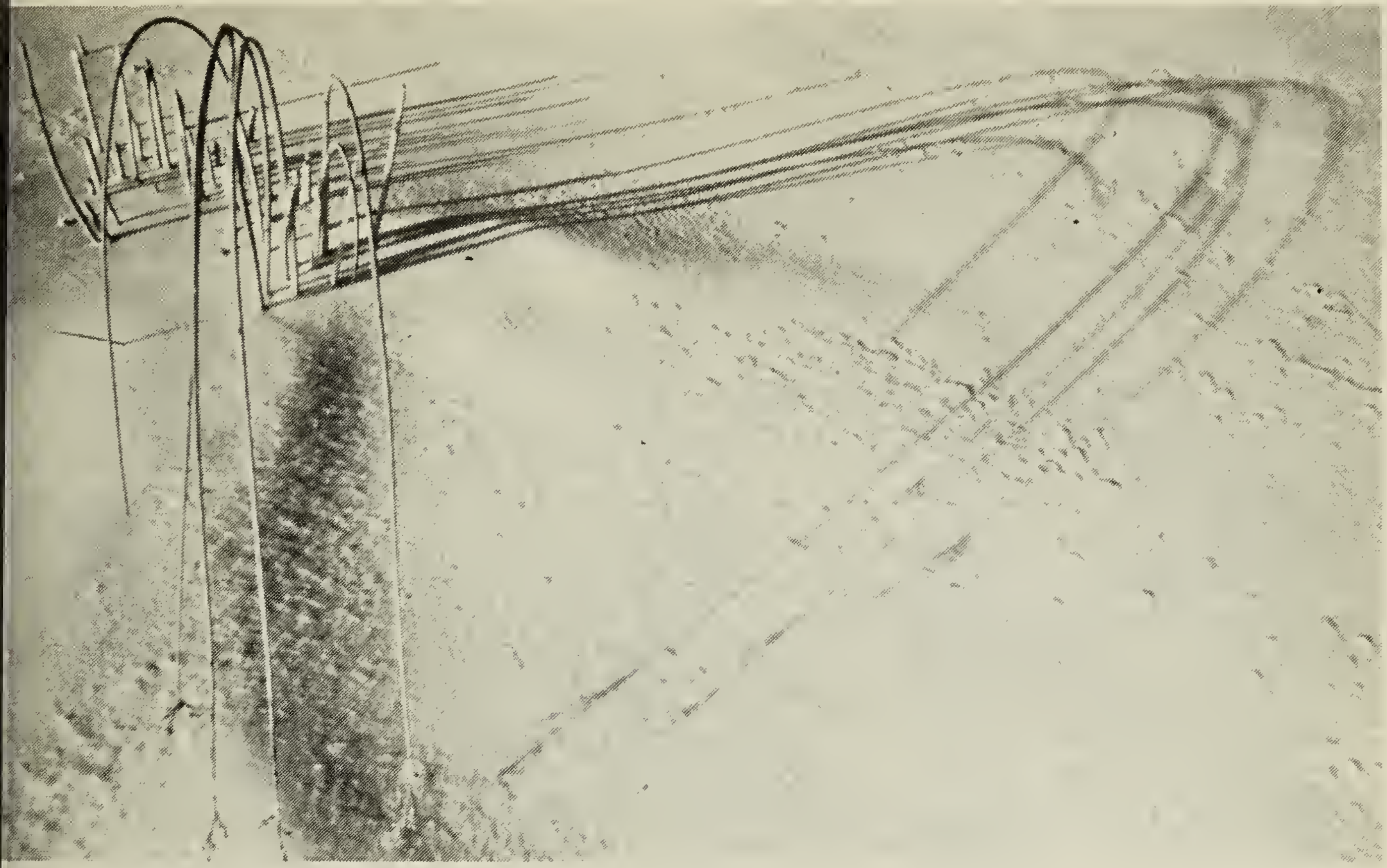
Winter is a season of several distinct moods that are soon felt by the naturalist/skier: **November and early December** — Ominous season; shortening days; moderate temperatures; shallow snow; fast skiing; blue wax. - **Late December to mid-February** — Silent season; deep freeze; survival; slow skiing; light green wax. **Late February and March** — Delightful season; lengthening days; warm; crows, horned larks and geese; fast skiing; klister.

The middle stage of winter is a bottleneck that tests the mettle of both skiers and wildlife.

All of us are within easy reach of natural areas . . . Within the limits of a city, there are several sites whic present opportunities for almost instant skiing without the need fo automobile travel. Walk or bus to th nearest park of golf course. Or bette yet, get on a river and ski for miles . . As the cross-country skier moves silently, mile after mile, over the winte landscape, there is much time fo thinking, and certainly the inspiratio for thought is abundant.

Winter skiing D. J. Niema

Part of the appeal of cross-countr skiing lies in its powers of mental an physical conditioning. As a sport it i rated, along with swimming an squash racquets, as tops for its abilit



Winter bulrush J. B. Gollop

to free the mind and exercise the body. New skiers are cautioned to dress in several light layers so that one or more may be removed after the first 20 minutes on the trail. Problems and pounds melt away along with the miles. This will come as no news to anyone who has cross-country skied for some distance. For the uninitiated, rent some equipment and head for the nearest golf course or park after the first snowfall. With a little practice you should be able to cover four or five miles an hour and will burn up a lot of calories in the process.

Cross-country skiing is not for everyone. Some prefer hockey for its excitement and bodily contact, or downhill skiing for its thrills. But for those people who are meant for cross-country skiing, the discovery of the sport may have a profound effect on their life-styles. To some the appeal is so great that they now find the off-ski season to be as frustrating as they once found the months of November through March. There was a time when the departure of waterfowl each fall heralded the season for indoor activities. Now fall migration is seen by many persons as the harbinger of cross-country skiing while the return of birds in the spring is a sad portent of the snow-free season that lies ahead.

What do cross-country skiers dream of around the fireside? They dream of long wilderness trails, over diverse and challenging terrain, free of power toboggans, and with remote overnight cabins. Of contacts with a variety of wildlife that serve to bring a new awareness of nature to the skiing experience while providing occasional respites from the steady, rhythmic stride. They dream of lighted trails near the city where they can go in evenings after work, and of moonlit nights which hold a special wonder and appeal. (Skiing dark nights on tricky terrain will quickly overtax the cross-country skier of average skill.) Dreams are also made of flowing springs and open rapids along the trail where fierce thirsts may be quenched. And finally they dream of trails through deep, clean, soft snow, and of times when skiing is fast and a single waxing will last all day. Humble though these dreams may be, cross-country skiers are a pretty undemanding lot and ask little more than to truly touch and explore the deep beauty of Nature's silent season.

SASKATCHEWAN WINTER STONEFLIES

LLOYD DOSDALL, Biology Dept., University of Saskatchewan, Saskatoon, Sask.

To anyone not familiar with Saskatchewan's spring and winter fauna, it is amazing to find winter stoneflies or "snow-flies" crawling over the snow or ice along a river bank and actively mating or searching for food in the near-freezing temperatures of early spring. Winter stoneflies are unique among insects because they are most active at temperatures far too cold for many other insects. In fact, chilling temperatures signal the most pronounced growth of winter stonefly nymphs.

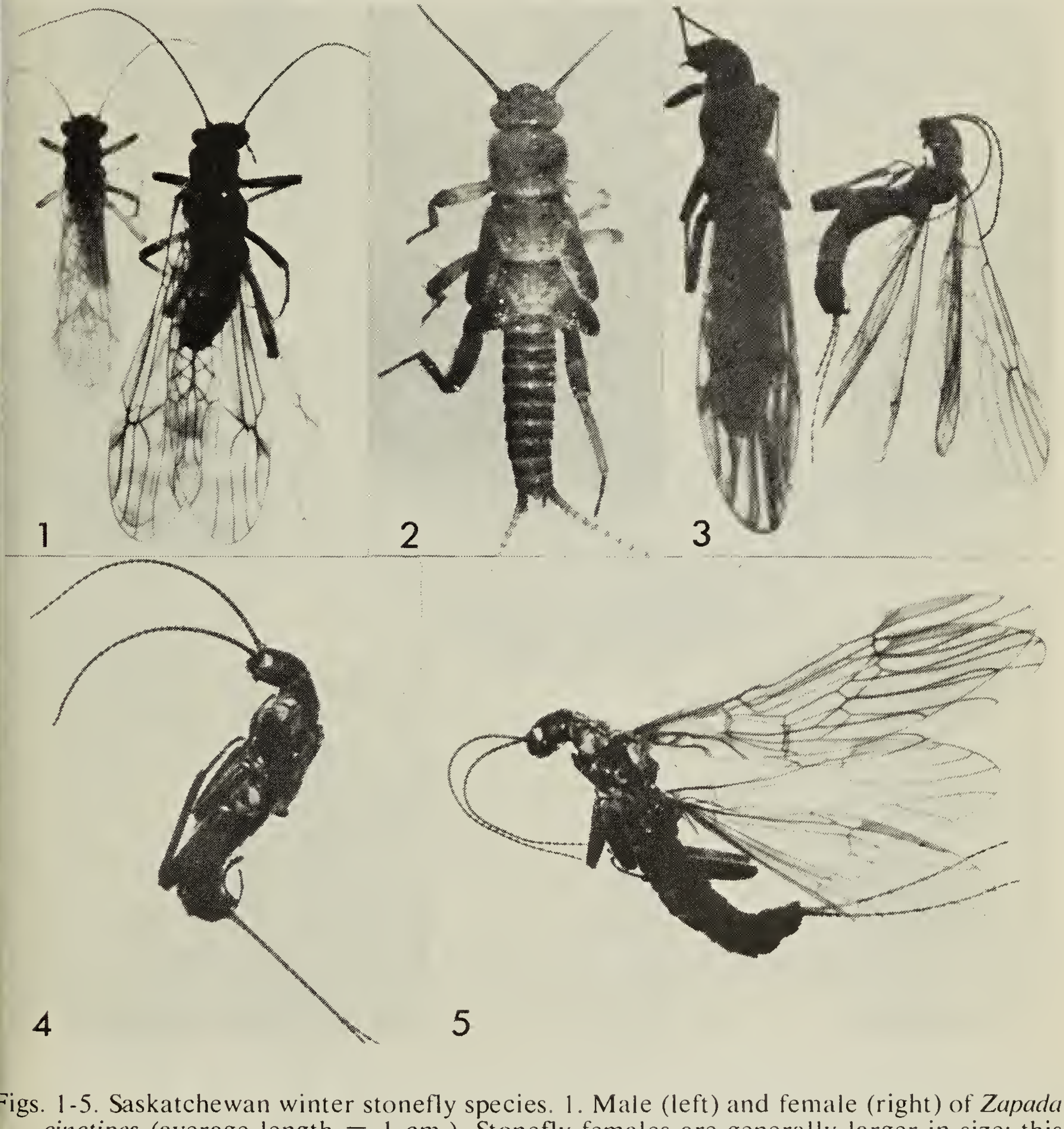
Stoneflies are similar to other aquatic insects such as mayflies, caddisflies and dragonflies in which the immature or larval part of their life cycle is spent in water while the adult is terrestrial. However, stoneflies require clean, well-oxygenated water and are, therefore, restricted to streams and rivers in Saskatchewan. Because the nymphs of winter stoneflies feed and grow during the fall and winter months (September to March), they are restricted to rivers which do not freeze to the bottom.

Winter stonefly nymphs are well-adapted to life in cold water. The eggs of several winter stonefly species hatch in the spring immediately after being laid by the female while water temperatures are still cool.[2] Nymphal growth occurs for a short time, but when water temperatures become warm in the summer months, nymphs burrow into the river bottom and spend the summer in a state of suppressed development (diapause). Cool water temperatures in early fall signal the resumption of nymphal feeding and growth which continues throughout fall and winter. Winter stoneflies generally feed on dead plant material. During the first warm days of spring, when the ice cover breaks in rivers and streams, full-grown nymphs crawl out of the water onto stones o
logs and the adults emerge from th
nymphal skin. Males generally emerg
a few days before females, and matin
can occur almost immediately. In fact
males have been observed to attach i
a mating position to nymphal female
even though the adult female had no
yet emerged.

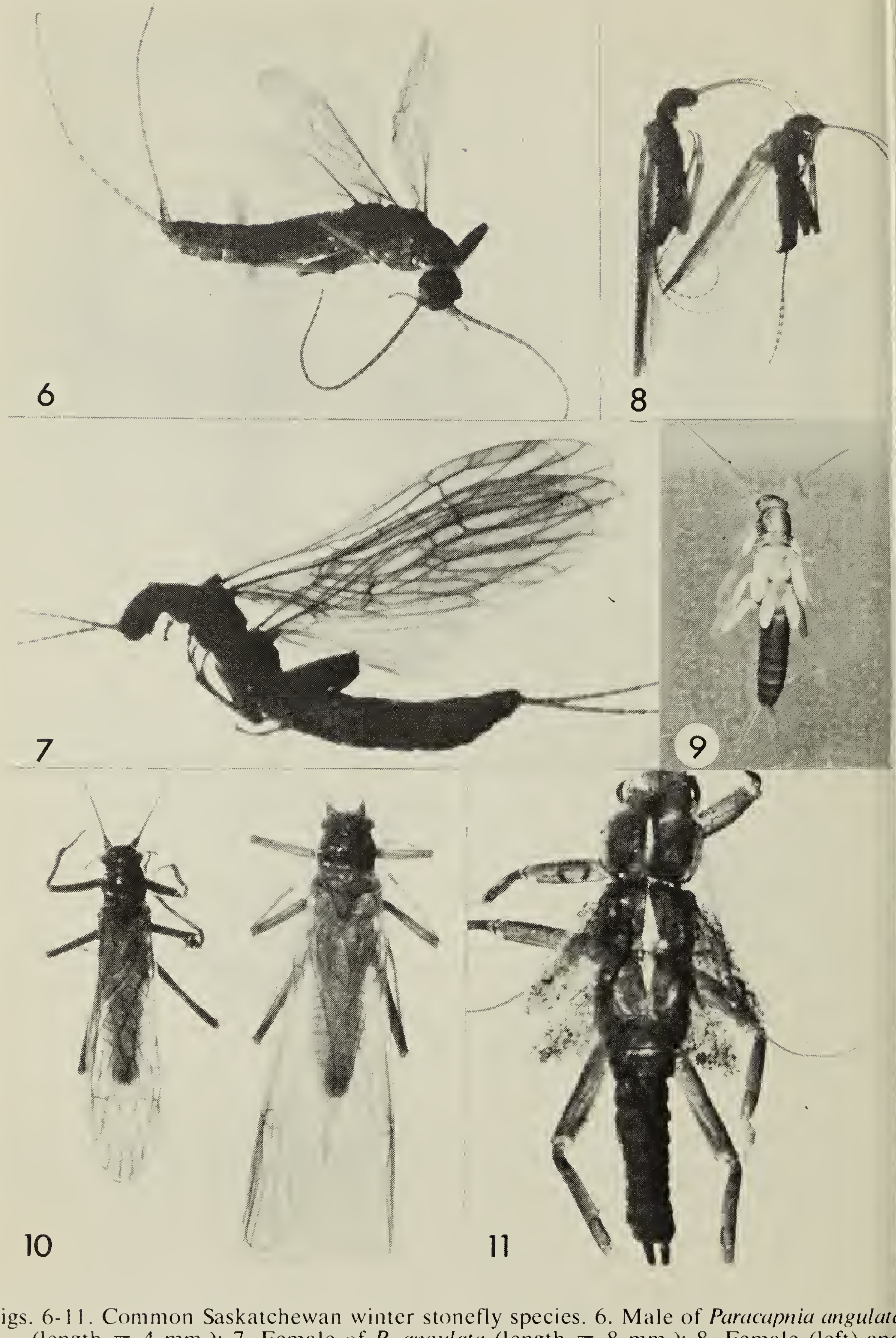
An interesting feature of some winter stoneflies is the occurrence o
brachyptery or short-wingedness
especially in males. This is particularl
evident in the male of *Utacapnia trav*
(Fig. 4), the male of *Paracapni*
angulata (Fig. 6) and the male o
Oemopteryx fosketti (Fig. 12). Whe
brachyptery occurs, it is restricted t
males in Saskatchewan species, but i
has been known to occur in both male
and females of some species found outside the province. Male stonefli
usually emerge earlier than female
and by having nonfunctional shor
wings, they are prevented from bein
carried away from the emergence sit
by wind before the females emerge.

Because adult winter stoneflies hav
poorly developed mouthparts and ar
short-lived compared to many othe
adult insects, it was long thought tha
adults did not feed. Closer study
however, has shown that many specie
feed on lichens and algae which occu
on tree trunks bordering streams.

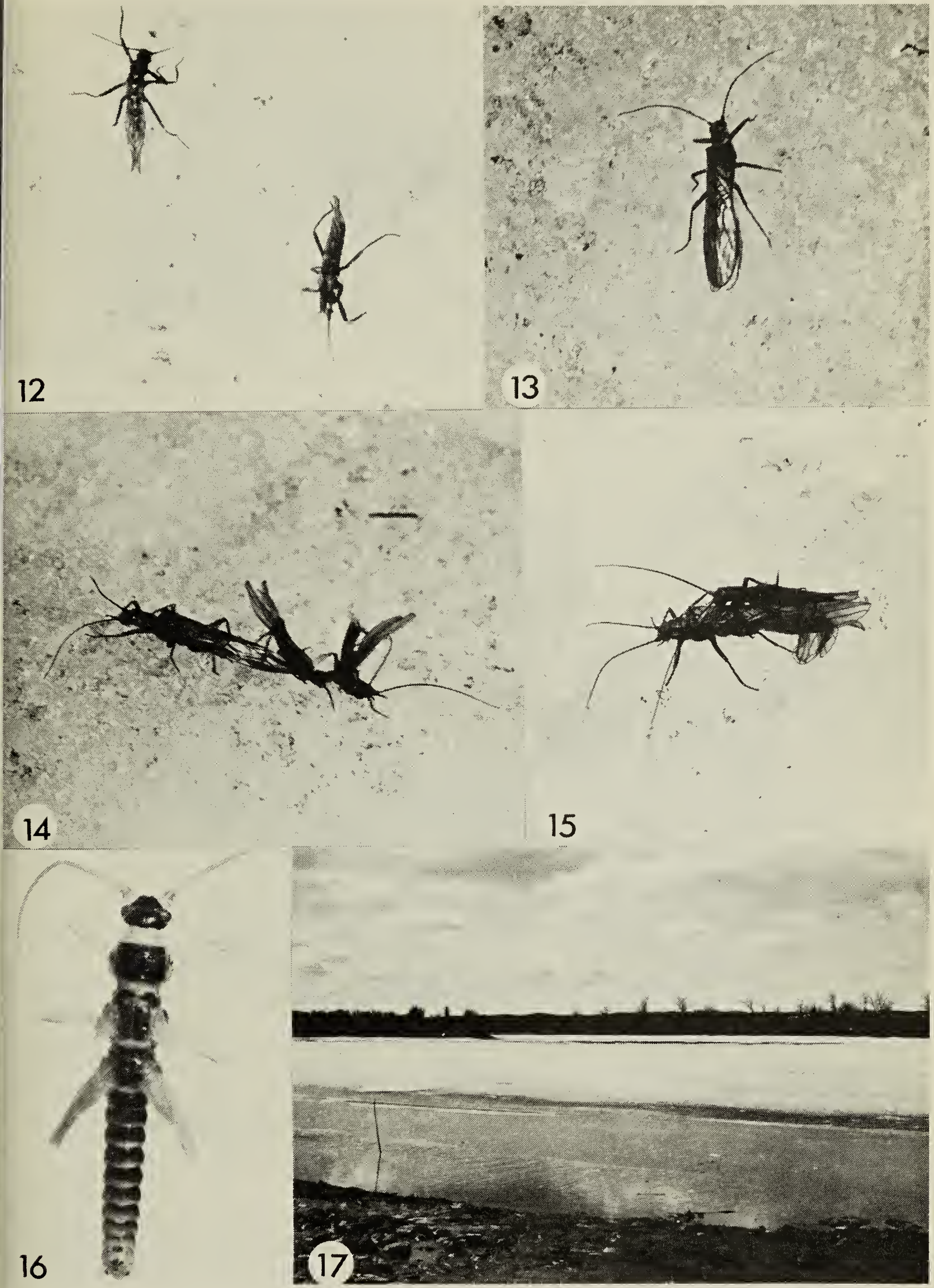
Adult stoneflies are easily collecte
in late March and early April by simply picking them off the surface of th
snow, the sides of bridges, or from tre
trunks along the streams from whic
they have emerged. Adults may also b
found under stones or trash at th
water's edge. An aerial sweep net ca
be used to beat brush or tree branche
to dislodge adults. Nymphs are bes
collected by holding a sweep net in th
water and kicking stones with one'



Figs. 1-5. Saskatchewan winter stonefly species. 1. Male (left) and female (right) of *Zapada cinctipes* (average length = 1 cm.). Stonefly females are generally larger in size; this species has a banded pattern on the wings; 2. Mature nymph of *Z. cinctipes*; 3. Female (left) and male (right) of *Capnia confusa* (average length = 6 mm.); 4. Male of *Utacapnia trava*; 5. Female of *U. trava*.



Figs. 6-11. Common Saskatchewan winter stonefly species. 6. Male of *Paracapnia angulat* (length = 4 mm.); 7. Female of *P. angulata* (length = 8 mm.); 8. Female (left) an male (right) of *Capnia gracilaria* (average length = 5 mm.); 9. Mature nymph of *C* *gracilaria*; 10. Male (left) and female (right) of *Taeniopteryx nivalis* (average length = 15 mm.); 11. Nymphal cast skin of *T. nivalis*.



Figs. 12-17. 12. Two males of *Oemopteryx fosketti* (length = 8 mm.) actively searching out females on the snow near the North Saskatchewan River, 13. female of *O. fosketti*; 14 A single female and two males of *O. fosketti;* 15. Mating pair of *O. fosketti* on the snow; 16. Nymphal male of *O. fosketti;* 17. North Saskatchewan River at the time of emergence of *O. fosketti.*

feet to dislodge numphs which are then carried by the current into the net. Both nymphs and adults should be preserved in 80 to 95% ethyl alcohol with accurate locality and date of collection labels.

Acknowledgments: I thank the Institute for Northern Studies and Dr. D. M. Lehmkuhl for financial support and I am grateful to John Waddington and Elaine Dribnenky for assistance in preparing the photographs. For comments on the manuscript, I thank Drs. D. M. Lehmkuhl and F. E. Wait.

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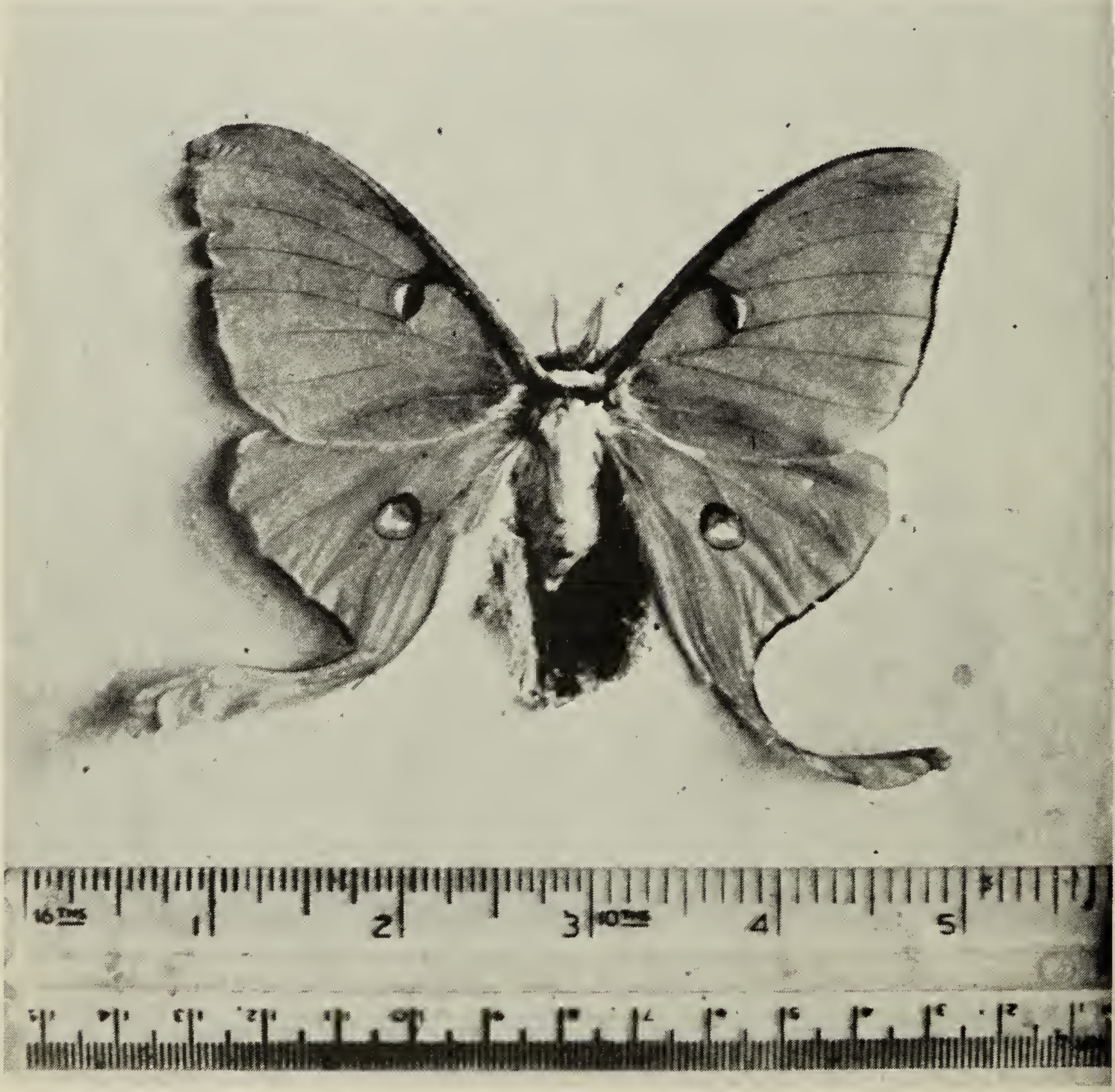
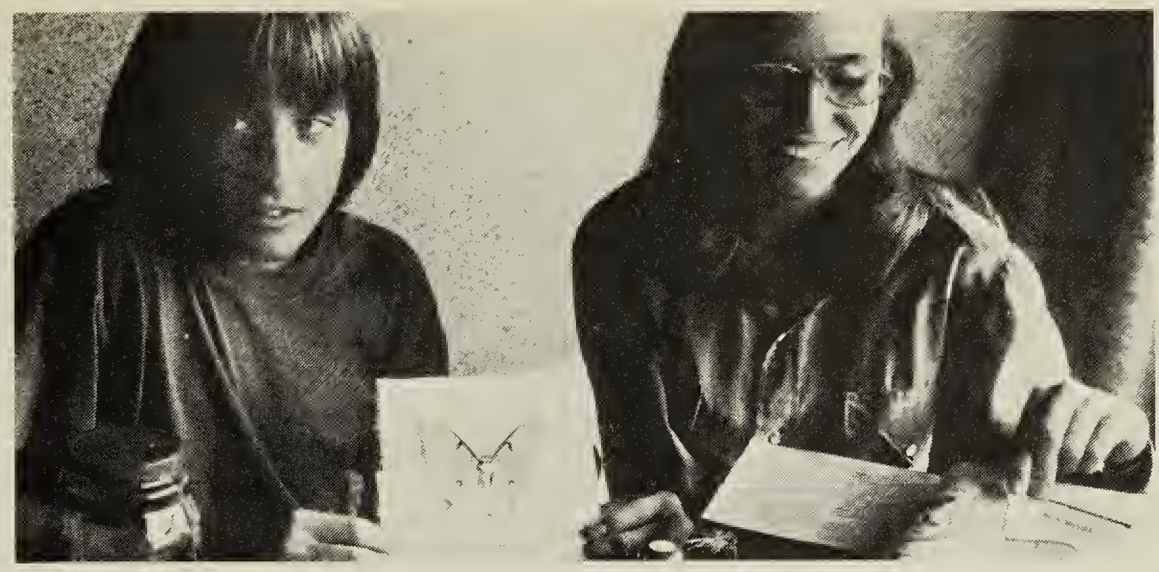


Luna Moth. F. J. Roy



Gerry and Louise Couture with Luna Moth F. J. Roy

WESTERN RECORD FOR LUNA MOTH

FRANK J. ROY,
1702 Sommerfeld Ave.,
Saskatoon, Sask. S7H 2S8

About 10:30 on the night of June 6, 1975, Gerry Couture (then 13 years old) was surprised to see what he thought was a large leaf flapping by itself on a raspberry bush in the back yard. Walking closer, he changed his mind; it must be a hummingbird, he thought. But a closer look revealed that it was a large green moth, with wings so fresh and moist that Gerry concluded it had just emerged from a cocoon. Realizing that he had never seen an insect like this before, he called to his sister, Louise. Struck by its beauty, Gerry and Louise captured it using an ordinary quart-size pickle jar.

Soon brothers and sisters, by now distracted from their favorite TV program, were digging into every encyclopedia and natural history book in the house. In a matter of minutes they had identified the moth to their satisfaction.

The next day, their mother, Gay Couture, phoned to tell me the kids had a Luna Moth at the house. "Would you like to see it?" she asked. Not wanting to confess my doubts, I agreed to go over to 2613 Estey Drive.

Still alive, the moth was clinging to a branch the children had placed in the jar. It was a Luna in nearly perfect condition, with a wingspread of over 4-1/2 inches. Recognizing that the tails on the hind wings would soon be damaged, we killed it by applying spot remover to a wad of cotton batting and inserting it in the jar. With the help of Paul Coutu, a friend who had come over, we pinned the moth temporarily to a makeshift pinning board.

The next afternoon, Maurice Taylor of the Canada Department of Agriculture Research Station on the University campus positively identified the moth and pinned it properly. Checking the extensive collection at the Research Station, he noted that it did not yet contain a Luna Moth from Saskatchewan. He advised me then to write to Ottawa to determine the significance of Gerry's specimen.

Mr. W. C. McGuffin of the Biosystematics Research Institute in Ottawa confirmed in a letter dated August 12, 1975, that "Mr. Couture's capture represents a new locality record for this species." Adding that the Luna Moth has been collected in the Prince Albert and Hudson Bay areas of Saskatchewan, he concluded, "The Saskatoon record probably represents a western limit of range to date."

Two perceptive young people, Gerry and Louise Couture, recognizing a rarity when they spotted it, have added to our knowledge of the range of one of its most beautiful inhabitants — the Luna Moth.

WINTER TOADS

J. R. TESTER and W. J. BRECKENRIDGE*

Winter behavior and survival of the Manitoba toad (*Bufo hemiophrys*) were studied on a virgin prairie in northwestern Minnesota, an area of extremely rigorous winters. Animals marked with radioactive tantulum-182 were followed during the period of summer movement and were located in early fall in their wintering sites. Over a 3-year period 7,483 toads were captured emerging in the spring and from Mima-type mounds (small earth mounds 10-40 feet in diameter and 1-2 feet high scattered over the prairie at a density of about 2 per acre. We believe that in our study area they are at least partly the result of pocket gopher (*Geomys bursarius*) activity. The mounds are covered by coarse weedy plants in contrast to the surrounding prairie flora).

Most toads began hibernation in late August or early September and all of them hibernated on the upland 75 to 115 feet from pond margins. Nearly all selected Mima-type mounds for burrowing. Most of the toads moved vertically during the winter, apparently in response to decreasing soil temperatures. Soil profiles of the hibernation sites were analyzed and we concluded that the depth of burrowing was not influenced by any of the soil characters examined. Most of the toads emerged from their wintering sites during May and early June. Peaks of emergence were associated with periods of high temperature and precipitation.

One toad was located at 18" below the soil surface in mid-October, 1959, 23" in November, 24" in December and January, 33" in February, 46" in March and April and 20" in mid-May. Another burrowed down 52 inches by mid-November, 1961, and remained there until mid-April, emerging at the end of the month. First toad maintained a position in the soil just below the frost line. This would indicate that it was surviving in soil with a temperature only 1 or 2 degrees above freezing. The other individuals appeared to spend the winter in considerably warmer soil many inches below the frost line. The winter of 1959-1960 was one with very little snow cover on the ground whereas the winter of 1961-1962 was one with deep snow cover on the wintering site.

---

*Abstracted from "*Winter Behavior Patterns of the Manitoba Toad, Bufo hemiophrys, in Northwestern Minnesota*". Annales Academiae Scientiarum Fennicae, Series A, IV. Biologica. 1964. P. 423-430.

* * *

"LOST" LIZARDS TRACED, FOUND

TUCSON, Ariz. — Scientists had to stir around in the stomach of a lizard preserved 75 years to come up with the latest attraction at the Arizona-Sonora Desert Museum here.

The Ditmars Horned Lizard was discovered in the desert of Sonora, Mexico, in 1897 by Raymond Ditmars, curator of reptiles at the New York Zoological Park. It was declared a new species in 1910, but no new specimen was found for three-quarters of a century.

Then M. D. Robinson of the University of Arizona combined records of an 1890 lizard-collecting expedition with clues taken from the stomach of one of the preserved reptiles. Identification of ingested grasses, pebbles and insect remains helped scientists, pinpoint the creature's habitat and rediscover the Ditmars population. — *The Minneapolis Star*. Feb. 19, 1974.

* * *

Two Sharp-tailed Grouse. Larry Morgotch

BIRD NOTES FROM THE MANITOBA BOUNDARY

LINDSAY A. WOTHERSPOON, Box 13-35, RR No. 1, Swan River, Man. R0L 1Z0.

On a recent visit with Dr. Stuart Houston in Saskatoon, I was encouraged to place some of my reminiscences in print.

I was born on a farm one mile from Orcadia, just west of Yorkton, in October 1910. My brother, Bill, was born 17 months later. In February, 1916, our parents moved to Hyas, where our home was in the village and our farm immediately adjacent to the north.

Bill and I became interested in birds and learned the various species from our copy of Taverner's *Birds of Western Canada*. When we decided we would like to band birds, we were unable to satisfy the requirement of recommendation by two ornithologists or game guardians, for we had never met anyone who shared our interest. We asked the local Justice of the Peace whether he was a game guardian and he replied, "Yep, ex officio." He then wrote the following letter: "To Whom it May Concern. This is to certify that I have known William Wotherspoon for years and he is quite capable of identifying any birds in this area." It is surprising, knowing the great difficulty in obtaining a banding permit today, that Bill's permit came through quite promptly from Ottawa.

Bill and I together banded 937 birds in Saskatchewan between 1931 and 1945. I can still remember the excitement when we received our first recovery in the mail: a robin banded at Hyas on June 5, 1932, was shot at Wells, Texas, on February 9, 1933. I don't know why he shot it but I

Loggerhead Shrike. Gary Anweiler

remember his name well: M. E. Halcomback. Of our 18 recoveries from birds banded in Saskatchewan, eight were from Marsh Hawks. This represents a 40% recovery rate, for we banded only 19 nestlings and one adult caught unharmed in a trap set on a fence post. We had three recoveries from four young Marsh Hawks in one nest, and both of two nestlings in another nest. All eight Marsh Hawk recoveries were from the United States. Stuart Houston summarized our banding results in the *Blue Jay* 3: 16, March 1945.

We also banded 73 starlings while residing at Niagara Falls, Ontario, in the winter of 1934-35. Seventeen local recoveries resulted from the Niagara-Welland-St. Catherines area. The most interesting occasion was on March 2, 1935, when we read an item in the *Niagara Falls Review* telling of 1,175 starlings trapped by Frank Mottola on Roberts Street. We visited him and obtained bands from seven of our birds. He used a wooden-frame drop trap about 5 feet square, covered with 2-inch chicken wire, propped on a stick. When the starlings entered to eat the bait of bread and cake crumbs, Mottola pulled the string. He pulled their heads off through the mesh and then strung the heads on long cords as trophies, later used in a vain effort to persuade neighboring fruit growers to pay him a bounty. He said he did this in revenge for the destruction of all the fruit on his large pear tree by starlings. He admitted that he had enjoyed many meals of tasty starling stew.

Our most unusual banding experience at Hyas involved goldfinches that flocked to new plants raised from seeds we had been given. We caught 24, mostly in a drop trap baited with water. These full-grown, flying goldfinches lost all fear after eating these seeds. Some could be picked up as they sat on a bush. They would lie quietly in our hands for minutes before flying. One lay there 25 minutes, then rolled

Western Meadowlark. Larry Morgotch

off and lay on the ground, looking at me for another 30 minutes. It was another 30 years before I deduced the reason. These were hemp plants and in retrospect, I realized the goldfinches had become "stoned" on marijuana to the point that they didn't care about banders or anyone else!

In 1956, I moved to new land which had been opened for settlement and transferred to the Lands Branch of the Saskatchewan Department of Agriculture, following forest fires. Our home is now on the Woody River in section 24, township 37, range 30. The Porcupine Hills Forest is immediately adjacent to our property on the north and west, while the Manitoba border forms the eastern boundary of our section 24. We are 15 miles west and 5 miles north of Swan River, Manitoba.

Although we are only 36 air-miles northeast of our previous farm at Hyas, the bird life is remarkably different. Unlike Hyas, here we have no Tree or Bank Swallows, no Loggerhead Shrikes, no Catbirds, no Brown Thrashers, no Veeries, no nesting Orioles and no Eastern Kingbirds. In fact, Eastern Kingbirds are rarely seen north of Highway 49 at Pelly and Arran. A Western Meadowlark has been seen only once in 20 years. Robins are less plentiful. Sloughs and marshes are few, with a different plant life, so that we have no American Bitterns, no Soras, no Yellow-headed Blackbirds and ducks are scarce here compared to Hyas. Our first bittern, a migrant, was sighted September 22, 1976. Sharp-tailed Grouse are less common than at Hyas, though we have had coveys of up to 31 birds, and I wrote earlier about their continued dancing as I seeded grain amongst them on their dancing ground (*Blue Jay* 18: 12, March 1960). A few Purple Martins nest here in hollow trees.

Unlike Hyas, we have here the Pileated and Arctic Three-toed Woodpeckers. We have had three sightings of Red-headed Woodpeckers in 20 years. Great Blue Herons are more often seen than at Hyas and Belted Kingfishers occur regularly along Woody River. Myrtle Warblers nest here and a male Chestnut-sided Warbler once died on hitting a truck window, the worm in his mouth suggesting that he was carrying food to young nearby. Unlike at Hyas, we occasionally hear Whip-poor-wills; one summer about 1956 they were calling all night beside buildings 2 miles north of us.

Perhaps the most remarkable sight was the immense flock of Common Redpolls that invaded a 50-acre field of unharvested flax in the winter of 1973-74. They came in December and their numbers gradually increased to a peak in January, when a solid cloud of redpolls literally carpeted the field, "wall to wall". I estimated more than a hundred thousand, perhaps even close to a million, redpolls. They left after every flax seed had been eaten.

Since I am on the slopes of the Swan River plains, I am now actually 200 feet closer to above sea level than I was at Hyas. The differences in bird life, therefore, cannot be due to altitude, but to different soils and the close proximity to the largest area of mixed coniferous forest at this latitude in Saskatchewan.

16th ANNUAL NESTBOX REPORT OF THE BRANDON JUNIOR BIRDERS — 1976

Mrs. JOHN LANE, 1701 Lorne Avenue, Brandon, Manitoba,
TONY BURTON, 3126 Pacific Avenue, Brandon, and
CHRIS MARTIN, 1312 Tenth Street, Brandon.

During the spring and summer of 1976 the Brandon Junior Birders' nestbox project was kept alive by the great interest and assistance of a group of volunteers, whom we have named "Friends of the Bluebirds". Some of these people had aided the late Dr. John Lane for many years; others were first timers. At a March meeting, nestlines to be covered were chosen by volunteers and forms for recording observations were supplied to them. Some "Friends" offered to be drivers for the Junior Birders.

In early October reports were brought in, and experiences and information were shared. It became evident that our main priority is to maintain the habitat for the bluebirds. This requires cleaning and repairing of nestboxes and monitoring as often as possible.

A few reports have not come in yet. Those received fall into two categories. A total of 280 nestboxes were maintained through cleaning and repairing but information on occupants was not complete. For an additional 1,109 boxes checked, specific records were submitted and have been compiled as follows:

Occupant	**Number of nestings**
Mountain Bluebirds	286
Eastern Bluebirds	26
Bluebirds, both species	136
Bluebirds, cross breeding	4
Tree Swallows	393
House Wrens	27
Starlings	8
House Sparrows	185
Flickers	1
Mice	39
Squirrels	4

The late John Lane banding bluebirds.

One hundred new nestboxes were set out, bringing the total to 4,621. It was not possible to check nestlines in certain areas due to shortage of personnel.

Some interesting data were reported. There were several observations of feathers being used by bluebirds in nest construction, ranging from one or two feathers to "a great many". Three nestings of Mountain Bluebirds with white, rather than pale blue, eggs were reported.

We are curious about Nest Box No. 1435. The report on this one shows: May 22, Eastern Bluebirds, 5 eggs; June 18, nest vacated; July 7, Eastern Bluebirds, 4 eggs. Might this have been an instance of two broods for the same pair of Eastern Bluebirds, or is the time interval between nestings too long?

Juniors' Christmas party — 1974. John Lane

Jim Spear of Russell reported two instances of cross breeding: in box No. 2845 a Mountain male and a hybrid bluebird (Mountain. Eastern) female with 5 eggs and 5 hatched; in box No. 2846 Mountain male with a hybrid bluebird female, 6 eggs, all hatched. - Mr. Spear reports that this pair were bothered by Tree Swallows when preparing for second nesting, so another nestbox was placed on the fence across the road on May 23 for the Tree Swallows, but the bluebirds decided to move into the new box and had 5 eggs and 5 hatched. Then in the same nest they had a third clutch of 3 eggs in the last week of June. He did not get back to see if these hatched.

In nestbox No. 4143 north of Deleau, Brandon Junior Birders caught a female Mountain Bluebird with band No. 820-20572. This bird had been banded by the late Dr. J. Lane on June 16, 1973, as a juvenile in nestbox No. 738 located in the same area.

It is interesting to note that the main enemies of the bluebirds in areas north and northwest of Brandon were House Sparrows. Over one hundred nestboxes will have to be moved for the spring 1977. In nestbox No. 52 three consecutive occupants — Mountain Bluebird, then Eastern Bluebird, and finally a Tree Swallow — were all killed by House Sparrows.

In areas southwest and southeast of Brandon, during a period of approximately 3 weeks, black flies (*Simulium venustum*) plagued the bluebirds, causing considerably mortality of the young, and often prevented monitoring of the nestboxes.

Reports received show 11 nestboxes destroyed through vandalism; 15 nestboxes disappeared.

Roy Everitt, Newdale, reported that magpies were reaching in and taking eggs and killing bluebirds in the shorter type nestboxes he had built. He plans to use our deeper pattern for next year.

In 5 instances, porcupines (*Erethizon dorsatum*) had chewed away portions of nestboxes. These were replaced.

Mr. Ted Muir, Wildlife Extension Specialist, Manitoba Department of Renewable Resources and Transportation Services, Winnipeg, expressed a desire to learn about the project and to give any assistance he could. He came to Brandon on September 8th for a meeting with Mrs. Lane, the Junior Birders, and three "Friends of the Bluebirds", at which it was agreed that the nestlines should be shown on adequate maps and that the Department would give publicity to legislation protecting birds. A supply of suitable maps has since been received from the Department and put into use.

Adult Eastern Bluebird with one young at box. John Lane

The authors wish to acknowledge with thanks the assistance of Roy Everitt, who supplied pictures, and of Mamie McCowan, who helped with preparation of the report and typed same.

"Friends of the Bluebirds" include: **Austin, Manitoba:** Mr. and Mrs. Wayne Brown; Mr. and Mrs. Percy Ewen. **Boissevain:** Charlie Reid and Malcolm Denny. **Killarney:** Lloyd Powell. **Miami:** Dale and Joan Robinson. **Neepawa:** Don and Mac Murray; Mrs. Sage; Mr. and Mrs. W. G. Moger. **Newdale:** Roy and Edie Everitt. **Pratt:** Mr. and Mrs. Les North. **Russell:** Jim and Mildred Spear; Richard Wileman, Robbie Glasman. **Shoal Lake:** Cliff Findlay. **Souris:** Art and Joyce Michie. **Wawanesa:** Ed and Ivy Robinson. **Brandon:** Mrs. John Lane; Brandon Junior Birders; Barbara Robinson; Dick and Hazel Patmore; David Randall; John and Marion Robinson; Mr. A. L. Campbell, Lisa and Patrick; Ken James; Barbara Robertson; Phyllis Ilsley; Betty Shankland; Margaret, Helen and Mamie McCowan; the Bauman family; Dr. R. Hamilton and daughters; John and Dorothy Mayhew; also Watty Forsythe and John Plum, who kept us supplied with new nestboxes.

WESTERN KINGBIRDS AND HOUSE SPARROWS

Mrs. JOHN HUBBARD,
Box 453, Grenfell, Sask. S0G 2B0

I was interested in the article on the Western Kingbird killing a House Sparrow as we had an entirely opposite situation occur this summer.

Western Kingbirds frequently arrive here, build nests, fight with their neighbours and eventually leave the area, having been unsuccessful in nesting attempts. This year one was seen on June 2nd and two more on June 3rd and all three stayed. A pair built in a blue spruce about 20 feet high, 10 feet from our porch and 6 feet from the walk to the house; the nest was not far from the top of the tree. There was some swearing at cats and dogs, and at the third kingbird who turned up for visits and sat on a wire a short distance away. The male kingbird sat on a telephone wire about 8 feet from the nest and shared this wire with robins, sparrows, mourning doves, and, particularly, a male House Sparrow in the latter stages.

The kingbirds appeared to have their nest completed June 20th and were observed feeding young on July 18th (the first successful nesting I know for these birds in our yard).

I have no date for their leaving the nest but I believe two young made successful exits over the heads of sleeping dogs and cats.

Four or 5 days later I was surprised to see the House Sparrows feeding young at a nest not much more than a foot beneath the kingbird's evacuated one. I knew House Sparrows had been building from the untidy mess just beneath the kingbird's nest but was surprised at their hatching so soon after the kingbirds' leaving. The female sparrow must have been pretty circumspect to have remained there while the kingbirds were feeding their young.

OBSERVATIONS ON BIRDS FROM NORTHERN CANADA — 1975

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This note reports some observations we made during the summer of 1975 that extend or confirm the known or breeding ranges of bird species in northern Canada. We list all records that are beyond the breeding ranges of Godfrey (1966).[4] All observations of sparrows and introduced species are summarized in Table 1, the former because of the special attention we gave them in our fieldwork, and the latter because of their ongoing incursions into the north.

The locations of our camps, and our dates at each site, are given in Table 1. D. M. Niles accompanied us at Ft. Chimo. Specimens are deposited in the Royal Ontario Museum and a copy of our field notes is deposited at the National Museum of Natural Sciences, Ottawa. Data on nesting birds have been separately summarized on North American Nest Record Cards or (if from Ontario) on Ontario Nest Records Scheme cards. Nomenclature follows Godfrey (1966), with one noted exception.

Our research was supported by a grant from the National Research Council of Canada to Rising.

RED-NECKED GREBE. We saw one carrying nesting material (weeds) in its bill on a pond by the CN Railroad track, 5 mi. S. Thompson Junction, Manitoba, 11 June. Not reported by Weber in 1973.[7]

BLUE-WINGED TEAL. Several were seen at Yellowknife, on Niven Lake which is used for sewage disposal.

GREATER SCAUP. We saw a pair, apparently on territory, on a small pond near the Coppermine River, 20 and 22 June, but were unable to locate a nest. Godfrey showed this species' breeding range well south of Coppermine.[4]

GOSHAWK. We saw one between Yellowknife and Edzo, 18 June.

SHARP-SHINNED HAWK. We saw one at Yellowknife, (7 km NW Giant Mine), 19 June.

OSPREY. We saw an Osprey overhead at the Inuvik airport, 3 July, and D. M. Niles saw one at Fort Chimo, 9 June. Godfrey gave sight records north to Great Bear Lake and Fort Norman, NWT, and north to Great Whale River and Knob Lake, Quebec.[4]

KILLDEER. We saw two or three at Norman Wells (along the Mackenzie River) and two at Yellowknife (Niven Lake).

RING-BILLED GULL. We saw one adult at Yellowknife (Niven Lake), 25 June, and one adult at Norman Wells (town), 26 June. Godfrey mentioned the occurrence of non-breeding individuals north to Great Slave Lake.[4]

COMMON NIGHTHAWK. Territorial ("booming") nighthawks were fairly common at Yellowknife (near airport).

BELTED KINGFISHER. We saw one at Yellowknife (North Arm, Great Slave Lake). 18 June, and two at Norman Wells (Mackenzie River).

ALDER FLYCATCHER. *Empidonax alnorum.* "Fee-bee-o"-singing birds were heard from several alder-willow thickets between Yellowknife and Edzo, 18 June. (See Eisenmann et al. for clarification of this nomenclature.[2])

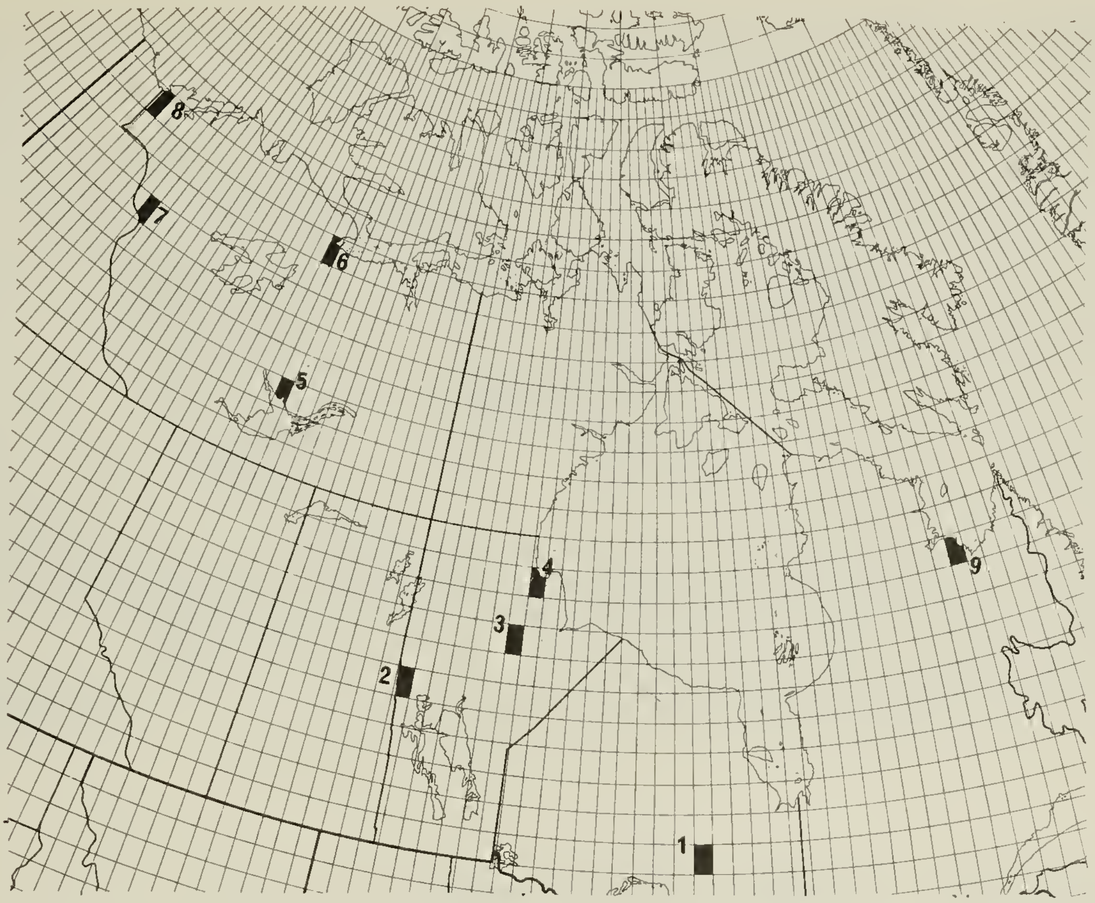
LEAST FLYCATCHER. We heard two singing at Gillam, and two singing at Norman Wells (town). Johnson considered Least Flycatchers uncommon breeders at Thompson, Manitoba[5]; Weber reported them as common.[7] Roe heard them at Norman Wells.[6]

TABLE 1

Sparrows and Introduced Species Observed in Northern Canada in Summer 1975

Map No. Species	1 Hornepayne, 8 km E, Algoma Dist., Ontario 5-8 June	2 The Pas, Manitoba 10 June	3 Gillam, 2 km NE Manitoba 12-13 June	4 Churchill, Manitoba 14-18 June	5 Yellowknife, NWT 18-19 June 23-25 June	6 Coppermine, NWT 20-23 June	7 Norman Wells, NWT 25-28 June	8 Inuvik, NWT 28 June - 2 July	9 Ft. Chimo Quebec 7-11 July
Starling	C	C	2	2	F		F		2
House Sparrow	C(town)	C	C(town) [a]	1					
Savannah Sparrow		C*	F to C*	C*	F*	C*	C*	F*	C*
LeConte's Sparrow		F							
Slate-colored Junco	2(heard)		2		2		2	3*	
Tree Sparrow				C*		C*		C*	F*
Chipping Sparrow	2	F	C*		F		F*		
Clay-colored Sparrow		C*			1		F*		
Harris' Sparrow				F		5*		F*	
White-crowned Sparrow			C*	C*	C*	F*	C*	C*	C*
White-throated Sparrow.	C*	C	F	F	F	1(male)	F		
Fox Sparrow			1	F				C*	F
Lincoln's Sparrow	1		C*	F	C*		C*	F*	F
Swamp Sparrow	1		3*	?	F		F		
Song Sparrow	1	F*	F*						
Smith's Longspur				C*		F*			
Lapland Longspur				1		C*			
Snow Bunting				4					

F = indicates "fairly common"; C = "common"; numbers are actual counts. Asterisk (*) indicates breeding documented by nest found, fledgling seen, or laying or incubating female collected. [a] Six House Sparrows were seen 11 June, 1975 at Waboden, Manitoba.



Numbers correspond to those in table on opposite page.

BARN SWALLOW. We saw one at Norman Wells (town), 27 June. Godfrey reported a nesting record at Fort Norman, NWT.[3]

GRAY-CHEEKED THRUSH. We saw and heard several in birch thickets at Coppermine.

SOLITARY VIREO. We saw three singing and apparently territorial males at Gillam, in spruce-jack pine-aspen woods. Johnson stated that this vireo is an uncommon breeder at Thompson[5]; Weber found two singing there on 30 June, 1973.[7]

RED-EYED VIREO. We heard two singing at Gillam, and two singing at Norman Wells (town) Weber considered Red-eyed Vireos "fairly common" at Thompson[7], and Godfrey mentioned records north to Fort Norman along the Mackenzie River.[4]

PHILADELPHIA VIREO. We took a pair at Gillman, 12 June. The female (ROM 124076) did not possess a brood patch; the male's (ROM 124075) left testis was enlarged to 4 x 3 mm.

TENNESSEE WARBLER. Tennessee Warblers were singing commonly from spruces along the east branch of the Mackenzie River at Inuvik, 30 June. Roe found them north to Fort Good Hope in the Mackenzie Valley.[6]

MAGNOLIA WARBLER. We found three singing males in spruce-jack pine-aspen woods at Gillam. They were "fairly common" at Thompson, in 1973.[7]

BLACKPOLL WARBLER. Blackpolls were singing fairly commonly in dense willow-birch thickets on the bluffs along the Coppermine River at Coppermine. Godfrey shows this species as breeding across the central NWT.[4]

PALM WARBLER. We found at least two pairs, and collected an incubating female (ROM 124415) in dwarf spruce-tamarack-Labrador tea thickets at the south end of the airport runway at Norman Wells. Roe reported autumnal sight records from Norman Wells.[6]

YELLOWTHROAT. We found several singing males at Gillam. Godfrey mentioned records north to central Manitoba, but neither Johnson nor Weber found them at Thompson.[4] [5] [7]

CLAY-COLORED SPARROW. We heard one singing from an alder thicket by the road, 11 km NW Yellowknife, 25

June, and found at least two pairs breeding (a female, ROM 124416, had an active incubation patch) in deciduous bushes at the south end of the Norman Wells airport, 26 June.

LINCOLN'S SPARROW. We found a pair breeding (the female, ROM 124417, had ruptured follicles and an active incubation patch) in a deciduous thicket along a stream through an old burn at the south edge of Inuvik, 1 July. Edwards and Weir reported the species at Inuvik.[1]

[1] EDWARDS, M. H. and R. D. WEIR. 1972. *Lincoln's Sparrow at Inuvik, N.W.T. and Common Starling at Whitehorse, Yukon.* Canadian Field-Naturalist 86(1): 85.

[2] EISENMANN, E. (and committee). 1973. *Thirty-second supplement to the American Ornithologists' Union Check-list of North American birds.* Auk 90: 411-419.

[3] GODFREY, W. E. 1965. *Range extensions of some birds in western Mackenzie.* Canadian Field-Naturalist 79 (1): 34-38.

[4] GODFREY, W. E. 1966. *The birds of Canada.* National Museum of Canada Bulletin Number 203. 428 pp.

[5] JOHNSON, J. W. 1970. *A bird list for Thompson, Manitoba.* Blue Jay 28 (1): 14-19.

[6] ROE, N. A. 1975. *New records of birds in west-central Mackenzie District, Northwest Territories.* Canadian Field-Naturalist 89 (2): 135-142.

[7] WEBER, W. C. 1976. *Birds of north-central Manitoba, 1973.* Blue Jay 34: 84-94.

PRAIRIE CHRISTMAS BIRD COUNTS, 1906 - 1941.

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In the December, 1900, issue of *Bird Lore*, editor Frank M. Chapman proposed a new type of Christmas day recreation to replace the sportsmen's "side hunt", whereby teams went out on Christmas day to see who could slaughter the greatest number of wild birds or animals. Chapman proposed that instead of slaughter, the birds be observed and the record be published in the first "Christmas Bird Census". Information as to weather, distance travelled, and hours in the field was requested, much as it is for Audubon counts today, although there were no restrictions as to minimum time.

In this paper we review Christmas Counts in the Prairie Provinces from 1906 through 1941. The year 1942 marked a new era in Christmas Counts, with Mrs. Priestly's announcement in the very first issue of the *Blue Jay*, soliciting entries to be published in the March issue. Sure enough, Volume 1, Number 2 contained eight counts — by Maurice G. Street of Nipawin, Frank Baines, southwest of Saltcoats, Jim Rogerson, visiting east of Saltcoats, F. Rouse of Scott, William Niven of Sheho, Steve Mann of Skull Creek, J. Francis Roy of Tullis and 5 adults and 4 juniors at Yorkton.

In the February, 1901, issue of *Bird Lore*, 25 counts were published. Two were from Canada; Fannie Jones saw four species in 5 hours in Toronto and William H. Moore saw nine species in 1 hour at Scotch Lake, New Brunswick. There were no counts from Canada for Christmas, 1901. There were counts from Charlottetown, P.E.I. in 1902; Queenston, Ontario in 1903; Reaboro and Queenston in 1904 and Millsbrook, Reaboro and Queenston, Ontario in 1905. The first published count from the Prairie Provinces was taken by Sidney S. S. Stansell in Edmonton in 1906 — 11 species in 8 hours.

Black-billed Magpie Fred Lahrman

Alberta. Between 1906 and 1941, a total of 26 Alberta counts was published, 13 in *Bird Lore* and 18 in the *Canadian Field Naturalist*, with five Camrose counts appearing in both publications. Edmonton counts appeared again in 1907 (6 species in 5-3/4 hours by J. A. Fyfe and John M. Schreck) and in 1909 (four species in 5 hours by Glenn Chadwick and Sidney S. S. Stansell). The only other Edmonton count in 36 years appeared in 1937 when Albert L. Wilk and Harman Burpee reported 11 species.

The most consistent locality on the Canadian prairies was Camrose, with 13 Christmas counts taken in 1920, 1925, 1926, 1927, 1929, 1930, 1931, 1932, 1935, 1936, 1937, 1939 and 1941. Frank L. Farley was the mainstay of the Camrose counters, missing only two of 13 counts, while Arthur Twomey participated regularly from 1925 to 1932. The maximum number of participants in any early Alberta count was seven at Camrose in 1931. Both in 1931 and 1935, the Camrose Bird Club had a commendable total of 17 species.

F. and G. Pegg did even better at Glenevis in 1928, with 20 species reported, and T. E. Randall at Sullivan Lake in 1925 turned in an impressive one-man total of 18 species.

Other Alberta counts came from Stoney Plain (1908, six species, S. S. S. Stansell); Noyes Crossing near Onoway, (1910, 14 species, S. S. S. Stansell); Calgary (1919, 14 species, Percy L. Custance); Red Deer (1933 and 1935, 8 and 12 species, M. P. Cole): Glenevis (1927, 15 species, Fred H. Pegg); and Government Hay Camp. Wood Buffalo National Park (1932, 3 species plus 12 additionals within 1 week, Mr. and Mrs. J. Dewey Soper).

SASKATCHEWAN. The first Saskatchewan Christmas count was taken in 1913 by S. W. Calvert of Lashburn, who stayed out for 7 hours and counted 7 species. The most consistent observer was Laurence B. Potter of Eastend who took nine counts, of which two were published in *Bird Lore* and seven in the *Canadian Field-Naturalist*. In 1927, E. M. and J. E. Callin recorded in the *Field-Naturalist* their 5-hour walk through marshes and woods at Whitewood.

Inspired by his uncle, Frank L. Farley of Camrose, young Farley Mowat and his school chum, Bruce Billings, took counts at Saskatoon in 1935 and 1936, with respectable totals of 8 and 11 species. Both counts were printed in *Bird Lore* and the second in the *Field-Naturalist* as well. The first

Yorkton count by four observers in 1941 was rejected by *Bird Lore* because of insufficient duration, when a blizzard cut the count short at noon. Full data on these 14 Saskatchewan counts are given in Table 1.

MANITOBA. The only early Manitoba count to appear in *Bird Lore* was in 1908 from Minnedosa, where John Woodcock saw 10 species in 4 hours. Subsequently there was a 1932 Winnipeg count which appeared only in *Bird Lore*, three counts which appeared in both publications, and 22 Manitoba counts in the *Canadian Field-Naturalist*.

The Manitoba Natural History Society fielded from 11 to 25 observers in Winnipeg in 8 different years, beginning in 1925. They observed a record 23 species in both 1932 and 1935. Edward Robinson took five counts at East Bay on the east side of Lake Dauphin in 1926, 1927, 1928, 1931 and 1935, with 12 species as his best total. Stuart Criddle at Aweme, northeast of Wawanesa, took interesting counts in 1933 and 1934 with 13 and 15 species. Single counts were taken at McCreary (1926, eight species, Vernon Harper); Ninette (1926, seven species, R. C. Scott); Mountainside, north of Turtle Mountain (1927, eight species, observer's name not given); St. Martin (1927, 12 species, Victor Woyna); La Riviere (1935, seven species, Clarence Wightman); Souris (1935, five species, S. H. Forrest); Vivian (1935, eight species, G. Rutherford, C. Hall, B. MacFarlane, J. Mackie, A. M. Mackie); and Brandon (1937, 11 species, Miss G. I. Todd).

RESULTS. What can we learn from these 64 counts concerning winter bird distribution on the prairies from 35 to 70 years ago?

In all three provinces the most regularly observed species was the Black-capped Chickadee, noted in 25 of 26 Alberta counts and in all 14 Saskatchewan and 24 Manitoba counts. In Alberta, the Common Redpoll and Pine Grosbeak came next, both observed in 21 counts, with Downy Woodpecker, Blue Jay and Black-billed Magpie seen in 19 counts, Snow Buntings in 18, Hairy Woodpeckers in 16, and both Sharp-tailed and Ruffed Grouse in 15 counts.

Nine of Saskatchewan's 14 counts were from the extreme southwest, but Common Redpolls and Sharp-tailed Grouse were seen on 13 counts, Black-billed Magpies on 12 and Snow Buntings on 11.

In Manitoba, the Blue Jay surprisingly came in second, from 20 of 24 counts with Snow Buntings in 19, Pine Grosbeak, Hairy and Downy Woodpeckers from 18 counts and Sharp-tailed Grouse and White-breasted Nuthatch from 17 each.

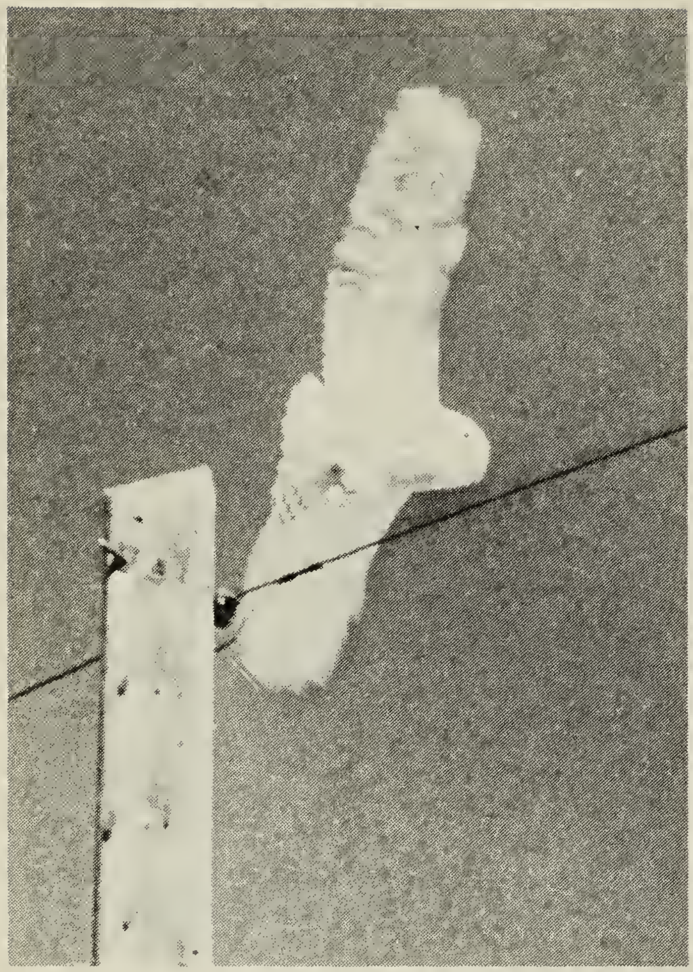
Since Saskatchewan results are being given in full in Table 1, and since Alberta and Manitoba counts were more numerous and representative, we shall restrict our discussion mainly to the interesting observations of these two provinces, and the changes that appear to have occurred.

Before open water became common at larger power plants, there were fewer waterfowl remaining over the Christmas season. There were 2 Mallards and 11 Common Goldeneyes at Calgary in 1919, and 4 Mallards and 1 Goldeneye at Winnipeg in 1932. One and 2 Lesser Scaup were reported from Winnipeg in 1926 and 1935. Calgary had 6 Common Mergansers in 1919, while Winnipeg had a Canvasback in 1926 and a Green-winged Teal in 1928.

The Goshawk was then the commonest winter raptor, almost certainly more regularly seen than it is today, with reports from 6 Alberta and 10 Manitoba counts. There were three Common Rough-legged Hawks (from Stony Plain in 1907 and Camrose in 1925 and 1935). A Ferruginous Hawk and a Golden Eagle were seen at Edmonton in 1906, with single Golden Eagles noted at Winnipeg in 1928, La Riviere in 1935 and two at Aweme, Manitoba, in 1934. A Prairie Falcon in 1932 and a Marsh Hawk in 1936 were both Winnipeg records. The only Merlin reported from the entire prairies in winter was one outside of count period at Camrose, December 17, 1925.

Totals for all 14 Christmas Bird Counts held in Saskatchewan from 1913 through 1941.

	Lashburn Dec. 18, 1913 S. W. Calvert	Eastend Dec. 22, 1919 L. B. Potter	Eastend Dec. 25, 1925 L. B. Potter	Eastend Dec. 26, 1926 L. B. Potter	Whitewood Dec. 28, 1927 E. M. & J. E. Callin	Eastend Dec. 26, 1928 L. B. Potter	Eastend Dec. 24, 1930 L. B. Potter	Eastend Dec. 22, 1932 L. B. Potter	Eastend Dec. 24, 1933 L. B. Potter	Eastend Dec. 30, 1934 L. B. Potter	Eastend Dec. 26, 1935 L. B. Potter	Saskatoon Dec. 22, 1935 F. Mowat, B. Billings	Saskatoon Dec. 15, 1936 F. Mowat, B. Billings	Yorkton Dec. 29, 1941 C. J. & C. S. Houston N. Black, V. Barnes
Mallard													2	
Goshawk					1					1, Dec. 20				
Rough-legged Hawk				1, Dec. 21						1, Dec. 13				
Golden Eagle				1							1			
Ruffed Grouse	4													
Sharp-tailed Grouse	40	1	5	40		4	45	42	5	12	18	1	3	25
Sage Grouse				1, Dec. 14			1, Dec. 7		3	1, Dec. 18	30			
Ring-necked Pheasant											1			
Gray Partridge			7				7	12	6	7	42	4	7	133
Great Horned Owl			2	2		2, Dec. 24	2	3	2	1, Dec. 31	1		1	
Snowy Owl	3											1		
Downy Woodpecker				1						1, Dec. 12		1		2
Horned Lark	1		5	1		1		50		3				
Blue Jay					1									
Black-billed Magpie		8	20	25		13	9	17	9	7	25	2	5	1
Black-capped Chickadee	1	6	2	1	5	3	3	1	5	3	3	6	7	1
Bohemian Waxwing		9	50	50		17	120	22		20, Dec. 31	40		60	
Northern Shrike						1, Dec. 12								
House Sparrow												20	20	98
Evening Grosbeak									2, Dec. 22				3	
Pine Grosbeak			7			9		5						
Gray-crowned Rosy Finch				100, Dec. 1		6, Dec. 3								
Hoary Redpoll													6	
Common Redpoll	40	20	12	16	100	2	60	12	12		35	2	30	35
Tree Sparrow						6, Dec. 25								
Lapland Longspur		1												
Snow Bunting	27	15	10	32	1	2	6	100	2	2, Dec. 26	9			152



Snowy Owl in flight. Adam Schmidt

Ruffed Grouse were then proportionately more regular, for they were noted from 15 Alberta counts, equal in this respect to Sharp-tailed Grouse, and from 10 Manitoba counts. The report of 38 Greater Prairie Chicken or Pinnated Grouse from Sullivan Lake in Alberta in 1926 rings true, since T. E. Randall counted 63 Sharp-tailed Grouse the same day. The count of 59 Pinnated Grouse from Winnipeg in 1928 is equally plausible, except that no Sharptails were noted that year. Many observers of that time followed the consistent use of all prairie dwellers, and of Ernest Thompson Seton, by referring to the sharptail as "prairie chicken". For consistency with scientific usage, an editor might well have changed an entry from "Prairie Chicken" to "Pinnated Grouse". In 1935, Winnipeg observers saw a single Pinnated Grouse and 12 Sharp-tailed Grouse.

Gray Partridge appeared in 11 Alberta counts, beginning with 17 at Calgary in 1919 and 67 at Sullivan Lake in 1925, the year that Potter noted 27 at Eastend, Saskatchewan. Ring-necked Pheasants were reported from three Alberta and four Manitoba counts, beginning with single birds at Winnipeg in 1931 and Red Deer in 1935. Two Common Snipe from Calgary in 1919 were most unusual.

Snowy Owls appeared in only five Alberta and five Manitoba counts, suggesting that their numbers were no greater earlier in the century than now. Great Horned Owls similarly were seen in seven Alberta and five Manitoba counts. There were seven Hawk Owls at Edmonton in 1906, and one each at Sullivan Lake in 1925, Glenevis in 1925, and Winnipeg in 1926 and 1935. Manitoba had Screech Owls twice (Winnipeg in 1928 and Aweme in 1933), a Barred Owl at Vivian in 1935, a Boreal Owl at Aweme in 1935 and a Saw-whet Owl outside count day at Minnedosa in 1908. Short-eared Owls were perhaps less common, for the only Manitoba record was one outside count day at East Bay in 1928, although there were 8 at Sullivan Lake in 1925 and 12 at Camrose in 1931, as well as a single at Camrose in 1935.

A Red-headed Woodpecker in a hollow telephone pole in Winnipeg in 1931 was a first winter record for that city. Black-backed three-toed Woodpeckers were reported from six Alberta counts, while the Northern three-toed was listed from three.

It appears that Horned Larks then regularly wintered only in the extreme south-western corner of Saskatchewan, for the five at Sullivan Lake, Alberta, in 1925, one at Lashburn, Saskatchewan, in 1913, and three at Winnipeg in 1936, were the only other records. Today they find the gravel shoulders of built-up highways particularly attractive.

Gray Jays were perhaps more common then, with records from eight Alberta and 10 Manitoba counts. Black-billed Magpies never lost their foothold in the ranching country of the foothills and southwestern Saskatchewan, but were absent from the early counts elsewhere. Excluding Eastend, the first counts were of a remarkable

109 from Calgary in 1919 and 7 at Camrose in 1926, while the only magpie from 24 Manitoba counts was a single bird at Aweme in 1934.

Ravens were reported from Edmonton, Stony Plain and Noyes Crossing in Alberta and three were seen outside of count day at Minnedosa in 1908. Crows were seen twice in Alberta and once in Manitoba.

Red-breasted Nuthatches were then decidedly scarce or absent, with a single record of two at Winnipeg in 1935. Boreal Chickadees were seen in 10 Alberta counts, and there were two in Winnipeg in 1935. While the White-breasted Nuthatch was the eighth most commonly reported bird in Manitoba during this period, there were no Alberta winter records. Brown Creepers, if anything, were more regular then than now, with reports from 10 Alberta and three Manitoba counts.

Single wintering Robins were noted once in Brandon and three times in Winnipeg. Winnipeg also had a Common Grackle in 1925, a Purple Finch in 1927, one slate-colored Junco in 1926 and 1936, and a White-throated Sparrow in 1935, while a Tree Sparrow stayed at Red Deer, Alberta in 1935. Thus the list of "holdovers" of summer species was somewhat shorter then, especially in Alberta.

Bohemian Waxwings were then decidedly fewer in number, for fruit-bearing trees were then less common in the towns and farmyards; waxwings were listed only from three Alberta and eight Manitoba counts. The highest numbers were 100 at Ninette, Manitoba in 1926 and 93 at Winnipeg in both 1925 and 1936. Cedar Waxwings were not known to winter and appeared in none of the 64 counts.

Golden-crowned Kinglets were represented only by two at Glenevis in 1928, two at Camrose in 1931, their first winter record, and one at Winnipeg in 1936. Northern Shrikes were seen twice in Alberta and in five Manitoba counts. The only record of Starlings was of six that appeared in Winnipeg in 1935.

Pine Grosbeaks then outnumbered Bohemian Waxwings and Evening Grosbeaks by a considerable margin, being tied for second place among all winter species in Alberta and fourth in Manitoba. The highest totals were more comparable, however, with 103 in Winnipeg in 1932 and 100 at Camrose in both 1929 and 1930. Evening Grosbeaks were less common then, with reports from only four Alberta and twelve Manitoba counts. Winnipeg reported 73 in 1936 but the second highest total was 22 in 1925, while the highest Alberta total was 11 Evening Grosbeaks at Edmonton in 1937.

Hoary Redpolls were reported twice from Alberta and three times from Manitoba, while White-winged Crossbills were seen three and two times, respectively. There was a single report of a Red Crossbill from Winnipeg in 1932.

Snow Buntings and Redpolls provided the highest numbers for individual species: there were 3,000 Snow Buntings at Camrose in 1929 and 897 at Winnipeg in 1935, and 1,000 Common Redpolls at Camrose in 1929.

Since 1942, Saskatchewan Christmas count coverage has been more thorough and hence more reliable, documenting a new tendency for some "summer species" such as the Cedar Waxwing, Horned Lark and even the American Robin, to stay into or through the winter. Local open water areas near larger power plants are utilized by more waterfowl. Bohemian Waxwings and Evening Grosbeaks come in larger numbers and stay longer. The merlin has become a regular wintering species and Red-breasted Nuthatches have increased. Whereas one might search all day in the 1940's to find one or two Black-billed Magpies, they are now one of the commonest winter birds.

Christmas counts will no doubt continue to monitor the changing patterns of winter bird distribution through the next 35-year period.

ARANSAS WHOOPING CRANES*

E. FRANK JOHNSON, Refuge Manager, Aransas National Wildlife Refuge, Austwell, Texas.

As one enters the Aransas National Wildlife Refuge he is confronted with vast thickets of running live Oak (*Quercus virginiana*). This is quite a contrast to the miles and miles of plowed grain fields just outside the refuge. In this dense brush country one wonders immediately where a Whooping Crane might be.

The Aransas Refuge was established in 1937 to protect vanishing wildlife and habitats of coastal Texas. The 54,829-acre refuge occupies Blackjack Peninsula situated about half way between Corpus Christi and Galveston on the lower Texas coast. Grassland, live oak and redbay thickets cover deep sandy soils. The peninsula is ringed by tidal marshes and the uplands are broken by long, narrow ponds. The Aransas is home for cranes, spoonbills, deer, alligators, turkeys and many other interesting and unusual forms of wildlife and plants — some of which are found only in South Texas.

The refuge area is divided into five management units or use areas. These include a 5,000-acre wildlife interpretive unit, 20,000 acres of brush country, 16,000 acres of grassland, 7,000 acres of marsh and tidal flats and 7,000 acres of coastal prairie.

Within the 5,000-acre wildlife interpretive unit visitors can enjoy the small, but appropriately furnished, visitor center. Here is where the story of the Whooping Crane and other Aransas wildlife unfolds. A mounted specimen of a Whooping Crane which was donated by the Canadian government is complimented by a short slide presentation on the life cycle of this magnificent bird. A 17-mile paved drive continues into the refuge. Along this route walking trails lead through oak thickets and along the edge of tidal marshes. An observation tower located 5 miles from the headquarters area overlooks a marsh and shallow bay area which is used at times by one family of Whooping Cranes. This overlook may be the visitor's only chance of seeing the rare cranes from the land.

Each family of cranes occupies an area of about 400 acres of marsh and vigorously defends this territory from other Whooping Cranes although numerous shorebirds, geese, ducks and other marsh creatures do not seem to bother the cranes. The whoppers' desire for isolation has caused them to disperse throughout the marsh on the refuge, as well as onto the marshes of Matagorda and St. Joseph Islands — barrier islands which are adjacent to the refuge proper.

Realizing that prime whooper habitat was limited and that natural foods along the coastal tidal flats might, at times, be in short supply, various management programs have been attempted on the Aransas. The following is a brief discussion of these programs.

MANAGEMENT PROGRAMS

Farm Crops. Two 97-acre experimental fenced fields were developed during the winters of 1964-65 through 1967-68.[2] Inclement weather during the 1964-65 period altered the cranes' normal feeding behaviour on coastal flats and resulted in use of the special food plots. Within these fenced exclosures such foods as hegari (*Sorghum vulgare*), corn, wheat, peanuts (*Arachis hypogaea*) and field peas (*Vigna sinensis*) were grown. Sandhill Cranes and Canada Geese consumed a considerable portion of the food intended for Whooping Cranes despite some utilization of

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*Presented at Whooping Crane Conservation Association Annual Meeting, Regina, Sask., on October 1, 1976.

View of observation tower and part of Aransas Refuge.

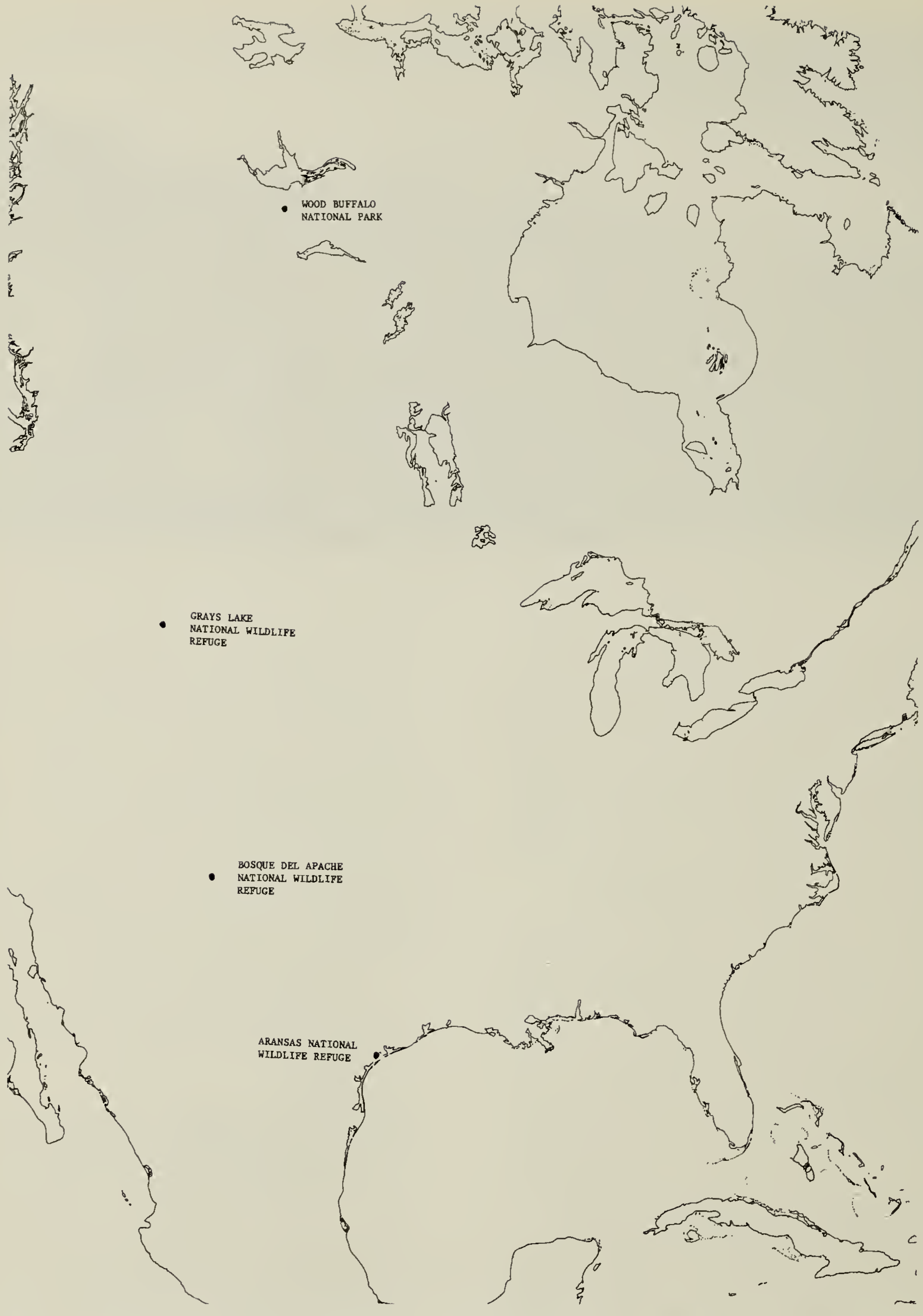
planted crops by whooping cranes, this program was discontinued in the late 60's. The cost to farm the sandy refuge soils, the preference of Whooping Cranes for marine life and the quick consumption of the planted crops by sandhills and geese were primary reasons for discontinuing the farming program for Whooping Cranes.

Artificial Feeding. During the same period (1964-1967) that farm crops were being grown, experimental feeding of Whooping Cranes by spreading milo and corn in both fenced exclosures was practiced. This artificial feeding program was used as a supplement to the farm crops since most planted grains were consumed by late November or early December by an assortment of wildfowl. As many as 34 whoopers, out of a wild flock of 47, were observed feeding within the fenced areas. Such a concentration of the only remaining wild whoopers prompted the end of this practice in early 1968. The exposure of the birds to a possible epizootic and possible domestication of the wild flock were primary reason for the decision to discontinue the artificial feeding program.

It is interesting to note that the period 1964 to 1968 was a period of rapid expansion of the Whooping Crane flock. From 33 birds in 1963 to 50 in 1968 was a remarkable expansion of the flock and the greatest rate of increase in 5 years since whooper records had been maintained (see table). Consequently, during this same period egg-napping was taking place on the nesting grounds to start a captive flock. Some scientists still argue the merits of the Aransas feeding program while others contend that the taking of single eggs from the Canadian nesting grounds gave rise to the expansion of the wild flock. Or, was this simply the time when nature prompted the increase in the number of whoopers?

Experimental Marine Impoundment. A 70-acre impoundment was constructed on the Aransas east shore tidal flats in 1968-69. The project was designed to pump water, complete with marine life, through a 36" pipe into the impoundment from a canal that extended into the nearby bay. Excess water then spilled back into the bay through 5 screened water control structures, with the expectation of pumping small fish, shrimp, crabs and other marine species into the pond where they would be trapped. It was thought that this "super-saturated" food would provide supplemental whooper food that could not be taken by geese and sandhills.

This project became fully operational in October, 1969, and by January the impoundment was saturated with the desired variety and


WOOD BUFFALO NATIONAL PARK
GRAYS LAKE NATIONAL WILDLIFE REFUGE
BOSQUE DEL APACHE NATIONAL WILDLIFE REFUGE
ARANSAS NATIONAL WILDLIFE REFUGE

Key summer and winter areas for Whooping Cranes. Grays Lake and Bosque del Apache are associated with the foster parent project (see next article).

abundance of marine fauna. To attract cranes to the impoundment, wheat and corn were scattered near the water. As usual, the cranes responded almost instantly to the grain, but would not go into the impoundment. After several weeks of this routine it was decided to make a substantial water draw down in order to trap the marine life in smaller and shallower depressions. A few days later 30 whoopers were seen flying out the impoundment. They continued feeding in the impoundment almost daily until spring departure. On one occasion 48 of the 56 cranes on Aransas were observed in the impoundment.

Pumping was resumed in mid-October for the 1970-71 population of cranes but a shortage of marine fauna in the canal and low tides which prevented pumping for as much as a two-week period created difficulties in saturating the impoundment. No whoopers were noted in the impoundment during the '70-'71 period. In subsequent years abundant natural foods were available in the tidal marsh and it has not been necessary to use the artificial impoundment. However, repairs to the pump and impoundment dike keep the system operational in the event it is needed to draw the cranes. away from their natural habitat should some type of crisis occur in the tidal bays.

Control of Oak Brush. Live oak brush on the Aransas Refuge spreads at alarming rates in the coastal sandy soils. It rapidly becomes thicketized as the shallow roots penetrate the soil and send up new sprouts at very short intervals. These sprouts soon form stems that become quite dense and unusable by wildlife. In the late '50's and early '60's many hundreds of acres of brush were mowed in order to open up additional acres for use by cranes and geese. The ability for very young oaks to produce acorns offered a virtually unlimited supply of food for wildlife after these thickets were opened up.

Much of the mowing took place on the fringe of the peninsula and adjacent to the marshes used by Whooping Cranes. The whoopers soon became accustomed to the mowers and would often follow only a short distance behind, picking up the acorns that were readily available. It was soon found that the manipulation of Aransas brushland was good Whooping Crane management and this practice was continued on an irregular basis for nearly 10 years.

In recent years, however, the cost of operating heavy equipment and a similar rise in fuel cost made the cutting of brush on a large scale almost prohibitive. Thus other methods of opening up dense live oak thickets to sandhills, whoopers, geese and other wildlife were examined. Since prescribed burning was inexpensive and would temporarily knock back live oak and other woody plants, a systematic approach to burning rather large areas of marsh and uplands was planned in 1973. Burning had previously been done on Aransas, but shifts in personnel had resulted in an on-again off-again approach to fire.

It was found that response to a burn was almost immediate by Sandhill Cranes, in particular. The day after burning a 2400-acre block in mid-October 1974, nearly 200 sandhills were observed grubbing for tubers and gleaning acorns and seeds from the area. Approximately 2 weeks after the burn one pair of Whooping Cranes came into a shallow pond within the burned area and stayed for 6 weeks. The refuge plans to continue to use fire in its management program for waterfowl and cranes.

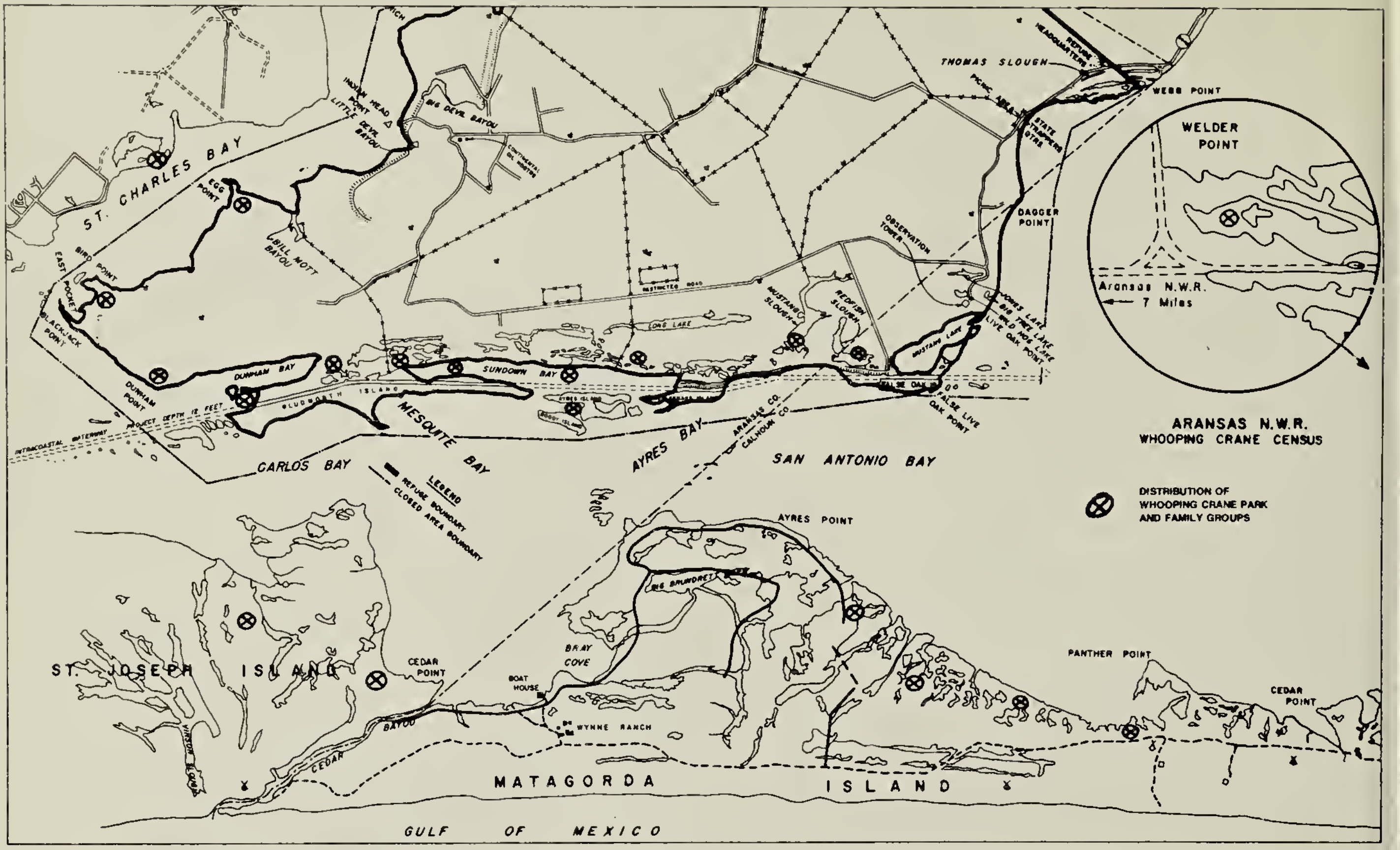
RESEARCH

In November, 1970, a study was undertaken by the National Audubon Society to investigate the behavior and habitat of the Whooping Cranes on the Aransas Refuge and adjacent islands. This study is still in progress and is being carried out by Biologist David Blankinship.

In his progress report Blankinship reports that detailed observations were continuing on Whooping Crane territorial, family and feeding behavior under near optimum conditions on the wintering ground. Seine and bottom core samples have been taken at two- to four-week intervals for each of eight sampling stations on the refuge to determine availability of food for the cranes.[1]

He also found that blue crabs (*Callinectes sapidus*) were the most important food items taken by the crane from their fall arrival through mid-January with clams becoming increasingly important after mid-January. Blankinship also stated that his mapping of crane territories indicated considerable sharing of territory by adjacent pairs or family groups. This may reflect changes in behavior that are permanent or may result from the abundant food supply during his years of observation.

Next pages: Whooping Cranes at Aransas.



Aransas National Wildlife Refuge showing locations of Whooping Crane groups.

HAZARDS

Oil Development. Fortunately, or unfortunately as the case may be, the Aransas Refuge and surrounding tidal waters sit on top of a rich oil and gas reserve. In recent years extensive drilling in the bays around the refuge has taken place. Numerous pipelines traverse the marshes, bays and islands to bring petroleum to onshore gathering stations or other pipelines. The possibility of an oil spill is forever in the minds of conservationists. While such an accident would be bad at any time of the year, it would be especially unfortunate when Whooping Cranes are on the wintering ground.

All possible precautions are taken in a cooperative effort between the refuge and the oil people. A moratorium on drilling is imposed during the period October 15 to April 15 each year to reduce disturbance and the possibility of an accident while the cranes are present. Another precaution is that permanent oil well platforms are built no higher than 15 feet above the high water mark. This regulation extends through the flight paths of the cranes so that the possibility of a crane striking such a structure is minimized.

Intracoastal Canal. The Gulf Intracoastal Canal bisects the Aransas Refuge marshes, creating yet another hazard for the Whooping Cranes. This canal is heavily used by tankers and barges hauling many chemicals and oil products. Constant alertness must be maintained to prevent the accidental spillage of a potent chemical within this canal. Should this occur many acres of prime crane habitat might be polluted. The refuge maintains a supply of grain for emergency feeding and, as has been shown in the past, a large number of cranes can be attracted inland by artificial feeding should the need arise.

Perhaps an even greater threat to the whooper's habitat in South Texas is a proposal to widen and deepen the present channel of the Intracoastal Canal. Placement of additional dredged material and the physical existence of a wider channel would require a considerable amount of land and water habitat. Hopefully, if the channel is enlarged alternate locations will be considered along the 15-mile segment that passes through the Aransas Refuge.

WILD WHOOPING CRANE WINTERING POPULATION

	TEXAS			LOUISIANA
	Adult	Young*	Total	Total
1938	14	4	18	11
1939	15	7	22	13
1940	21	5	26	6
1941	13	2	15	6
1942	15	4	19	5
1943	16	5	21	4
1944	15	3	18	3
1945**	14	3	17	2
	(18)	(4)	(22) probable	
1946	22	3	25	2
1947	25	6	31	1
1948	27	3	30	1
1949	30	4	34	0
1950	26	5	31	0
1951	20	5	25	0
1952	19	2	21	0
1953	21	3	24	
1954	21	0	21	
1955	20	8	28	
1956	22	2	24	
1957	22	4	26	
1958	23	9	32	
1959	31	2	33	
1960	30	6	36	
1961	34	5	39	
1962	32	0	32	
1963	26***	7	33***	
1964	32	10	42	
1965	36	8	44	
1966	38	5	43	
1967	39	9	48	
1968	44	6	50	
1969	48	8	56	
1970	51	6	57	
1971	54	5	59	
1972	46	5	51	
1973	47	1	48****	
1974	47	2	49	
1975	49	8	57	

*Young of the year.

**The 1945 count of Aransas and environs does not include a potential of 4 adults and one young wintering elsewhere, as fall 1946 count of 22 adults (plus young) exceeds 1945 Aransas count.

***January 16, 1964, two additional birds were reported near Tampico, Mexico.

****A second young bird was seen on two air counts in early fall of 1973.

PUBLIC RELATIONS

While research, management and protection are vital to the survival of the Whooping Crane, an alert and interested public is equally important.

At Aransas Refuge, where 150,000 visitors come each year, the opportunity to explain the plight and importance of the whooper is taken advantage of. Slide presentation and movies plus printed material are available to individuals, school classes and other groups who visit the area.

In the past year the film "Aransas" was shown nearly 200 times to 6,000 visitors; the well-designed refuge's environmental education area was used by 172 youth groups involving 5,600 youth; 30 bus tours from Canada make regular stops at the refuge; and refuge personnel placed posters in all hunting blinds adjacent to the refuge in an effort to alert hunters to the presence of Whooping Cranes. Apparently these efforts have paid off since there has been only one instance of a Whooping Crane being accidentally lost on the wintering grounds.

ECONOMIC VALUES

Any discussion of the Whooping Crane would not be complete without mentioning the economic value of the species. Volumes have been written about the whooper's aesthetic value and its importance as the conservation symbol of two great nations — the United States and Canada. Little, however, has been written about the whoopers' economic value. This aspect was addressed in the early 1960's when a survey was made in Texas to determine the whooper's economic impact. At that time it was estimated that between 1-1/2 and 2 million dollars were pumped into the local economy from tourism directly related to the Whooping Crane. That figure today is now estimated to be between 3 and 4 million dollars. So, what's the value of a whooping crane?

THE FUTURE

The Aransas Refuge is looking forward to the day when 50 breeding pairs of cranes will return each winter with their offspring. A few years ago this figure seemed unreachable for any time in the immediate future. However, when 40 adults and 8 young appeared in Texas for the 1975-76 winter and Canadian officials reported in the summer of 1976 that 12 additional young were surviving on the nesting grounds, things were looking up for the whoopers. For the first time ever the flock might exceed 60.

Other events in 1975 leaned toward better conditions for the Whooping Cranes in Texas. The U.S. Air Force announced that it was closing the Matagorda Island Air Base and this land became surplus Federal property. Already Whooping Cranes had spread to the State marshlands on Matagorda and the Department of the Interior applied for the transfer of the Federally-owned upland to the U.S. Fish and Wildlife Service. The upland Federal lands total about 19,000 acres while the State of Texas owns approximately 16,500 acres of marshland on the bay side of Matagorda.

The management of this pristine island by both Federal and State agencies should assure its preservation and enjoyment for many years to come by both wildlife and people. The U.S. Fish and Wildlife Service has developed a proposal to accomplish the above objective. The accompanying map summarized the proposal.

Summary. The bold adventure in survival which has been shared by Canada and the United States finally seems to be coming to fruition. From less than 20 wild birds in 1938 to perhaps more than 65 in 1976 is progress and a tribute to many folks who have shared this challenge.

[1] BLANKINSHIP, D. R. 1973. *Cooperative Whooping Crane research program.* Progress Report, April 1973. National Audubon Society, U.S. Fish and Wildlife Service.

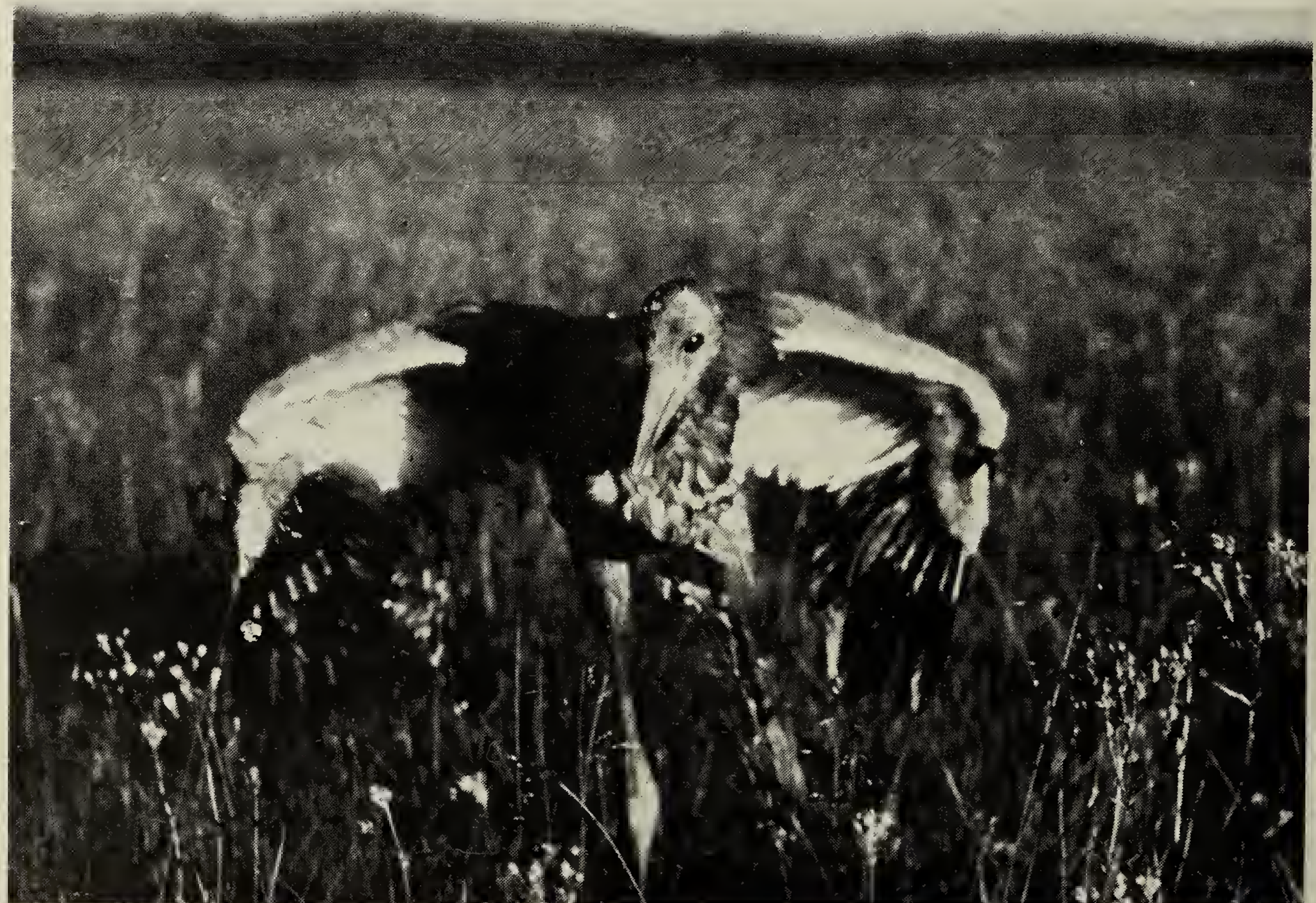
[2] SHIELDS, R. H., and E. L. BENHAM. 1969. *Farm crops as food supplements for Whooping Cranes.* J. Wildl. Manage. 33: 811-817.

Ernie Kuyt taking egg from Whooping Crane nest in Wood Buffalo National Park, N.W.T. Note habitat in background. Elwood Bizeau

WHOOPING CRANES AND THEIR FOSTER PARENTS

In 1975 Canada and the United States embarked on a new experiment to bring back the Whooping Crane. One egg was taken from two-egg clutches in Wood Buffalo Park, flown to Grays Lake National Wildlife Refuge, Idaho, and substituted for the eggs of Greater Sandhill Cranes whose breeding history was known from several years of study. The following photographs, showing foster whoopers in their new setting, were kindly supplied by Rod Drewien, Idaho Cooperative Wildlife Research Unit, who is in charge of the project.

Foster parent Greater Sandhill Crane on nest at Grays Lake NWR, Idaho. Bird is near center of foreground with head and neck on ground. Note habitat in background.
R. C. Drewien



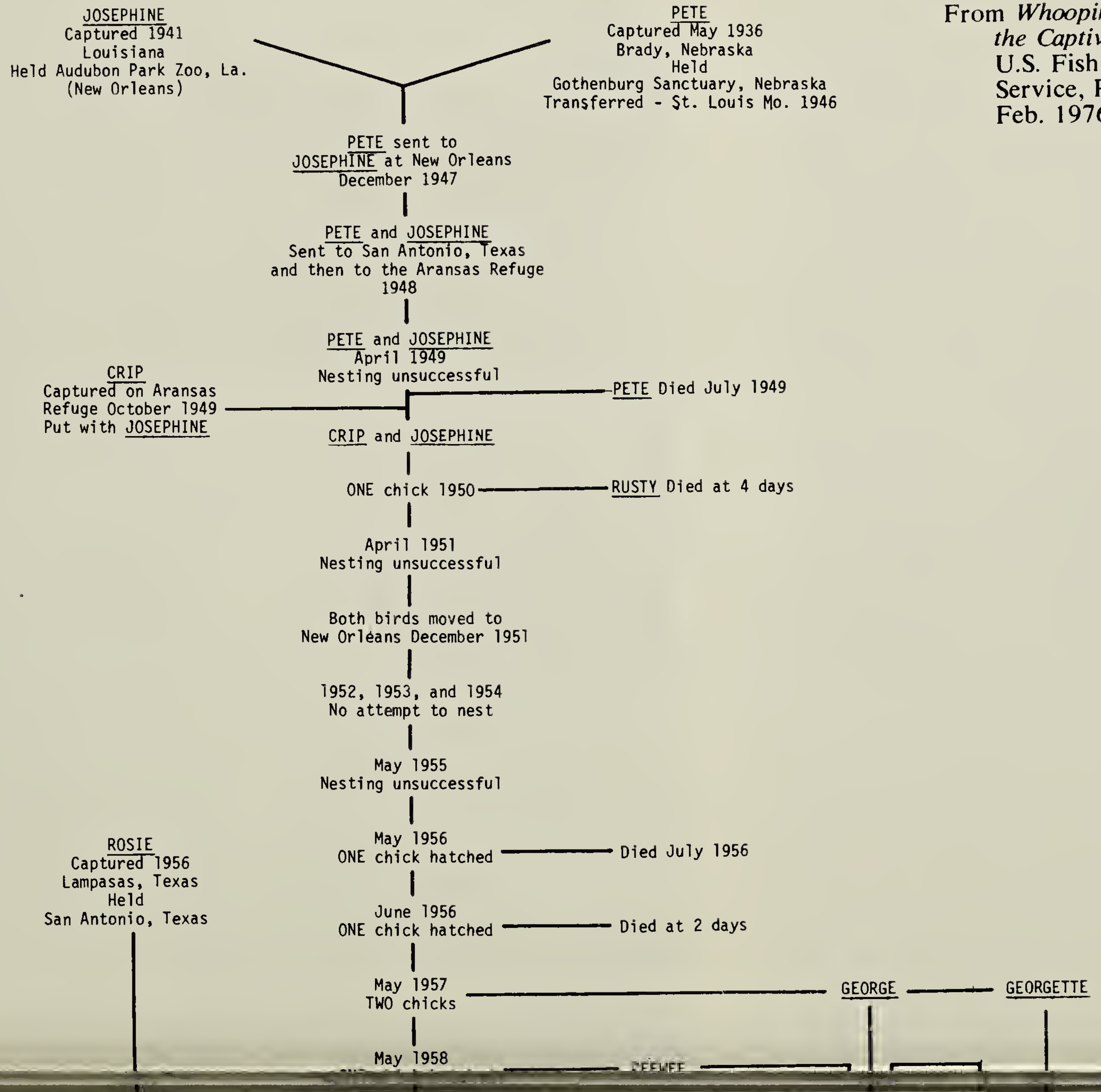
74-day old flightless Whooping Crane attacking researcher prior to being captured for banding and color-marking. Grays Lake NWR, Idaho. R. C. Drewien.

Young Whooping Crane flying with foster parent Sandhill Cranes, Bosque del Apache NWR, New Mexico. December, 1975. R C. Drewien

7-1/2 month old Whooping Crane with foster parent Sandhill Cranes in a corn field, Bernando, New Mexico. Note standard aluminum legband and coloured legband. January, 1976. R. C. Drewien.

HISTORY OF THE TEXAS-LOUISIANA CAPTIVE WHOOPING CRANE FLOCK

From *Whooping Cranes — the Captive Flock*
U.S. Fish and Wildlife Service, RF-23518-15.
Feb. 1976.



JOSEPHINE
Captured 1941
Louisiana
Held Audubon Park Zoo, La.
(New Orleans)

PETE
Captured May 1936
Brady, Nebraska
Held
Gothenburg Sanctuary, Nebraska
Transferred - St. Louis Mo. 1946

PETE sent to
JOSEPHINE at New Orleans
December 1947

PETE and JOSEPHINE
Sent to San Antonio, Texas
and then to the Aransas Refuge
1948

PETE and JOSEPHINE
April 1949
Nesting unsuccessful

PETE Died July 1949

CRIP
Captured on Aransas
Refuge October 1949
Put with JOSEPHINE

CRIP and JOSEPHINE

ONE chick 1950

RUSTY Died at 4 days

April 1951
Nesting unsuccessful

Both birds moved to
New Orleans December 1951

1952, 1953, and 1954
No attempt to nest

May 1955
Nesting unsuccessful

May 1956
ONE chick hatched

Died July 1956

June 1956
ONE chick hatched

Died at 2 days

ROSIE
Captured 1956
Lampasas, Texas
Held
San Antonio, Texas

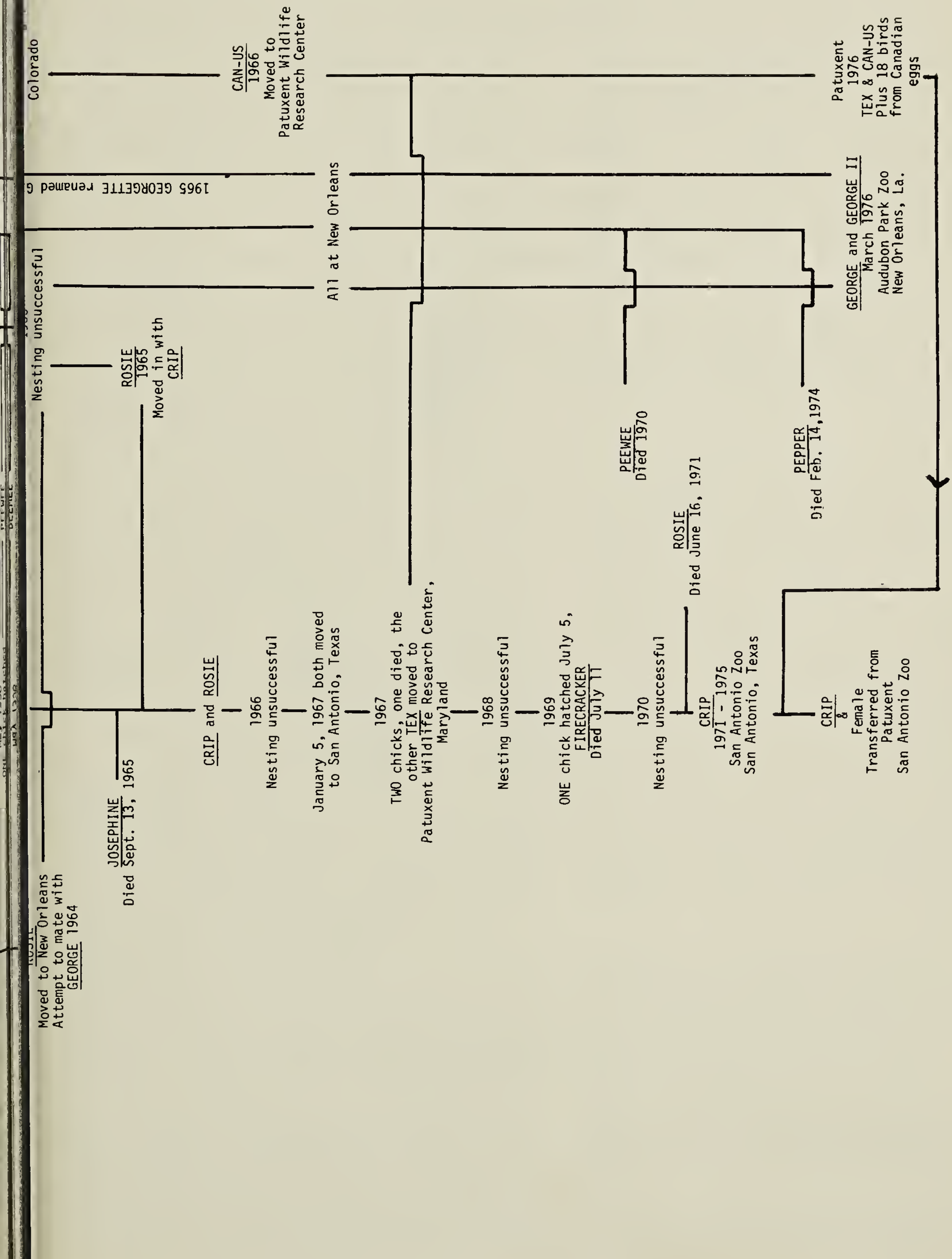
May 1957
TWO chicks

GEORGE

GEORGETTE

May 1958

PEEWEE


ROSIE
Moved to New Orleans
Attempt to mate with
GEORGE 1964
JOSEPHINE
Died Sept. 13, 1965
Nesting unsuccessful
ROSIE
1965
Moved in with
CRIP
Colorado
CAN-US
1966
Moved to
Patuxent Wildlife
Research Center
1965 GEORGETTE renamed G
All at New Orleans
CRIP and ROSIE
1966
Nesting unsuccessful
January 5, 1967 both moved
to San Antonio, Texas
1967
TWO chicks, one died, the
other TEX moved to
Patuxent Wildlife Research Center,
Maryland
1968
Nesting unsuccessful
1969
ONE chick hatched July 5,
FIRECRACKER
Died July 11
1970
Nesting unsuccessful
CRIP
1971 - 1975
San Antonio Zoo
San Antonio, Texas
ROSIE
Died June 16, 1971
PEEWEE
Died 1970
PEPPER
Died Feb. 14,1974
GEORGE and GEORGE II
March 1976
Audubon Park Zoo
New Orleans, La.
Patuxent
1976
TEX & CAN-US
Plus 18 birds
from Canadian
eggs
CRIP
&
Female
Transferred from
Patuxent
San Antonio Zoo

WHOOPING CRANES IN MANITOBA?*

ANDREW DIDIUK, Wildlife Technician, Manitoba Dept. of Mines, Resources and Environmental Management.

. . . Southern Saskatchewan is a regular stop-over for Whooping Cranes during both spring and fall migrations. Upon leaving the North Platte River, Nebraska, (another stop-over area), the cranes head north and fan out once they reach the shortgrass prairie and aspen parkland of southern Saskatchewan. The cranes return through this same area during their 1800-mile trip from Wood Buffalo National Park to Texas. Occasional sightings of Whooping Cranes in southern Manitoba have been attributed to casual stragglers from the rather narrow flyway through southern Saskatchewan.

Very few confirmed sightings of Whooping Cranes are available for northern Manitoba. Mrs. Eva Beckett recorded two adults and one immature on 1 October, 1953, near the Churchill townsite. I. H. Smith reported three Whooping Cranes flying over the same town on 6 September 1964. There are three reports of Whooping Cranes in the Northwest Territories adjacent to Manitoba. One was killed near Eskimo Point in 1930 and two at the south end of Nueltin Lake in April, 1947. In the summer of 1948 D. A. Ball sighted two Whooping Cranes at Baker Lake, N.W.T. All of these reports, possibly excepting the last, were definite sightings.

During the summer of 1974 further sightings of Whooping Cranes in northern Manitoba were brought to the author's attention. The following report was exceptionally well documented and indicates the value of observing as many details as possible to facilitate confirmation of sightings.

"On June 22nd, 1974, 2 adult Whooping Cranes were sighted in flight near North Seal Creek, latitude 56° 59′, longitude 92° 55′ by W. K. Harper, Wildlife Biologist, and I. R. Bukowsky, Resource Technician, Department of Mines, Resources and Environmental Management. The cranes were sighted from a helicopter during a resource reconnaissance flight of tributaries that drain in the Lower Nelson River. We feel that this was a positive indentification for the following reasons: i) During the reconnaissance flight, two adult Sandhill Cranes with an undetermined number of young were observed in the vicinity of York Factory, less than one hour prior to sighting the Whooping Cranes. This implies size relationship. ii) The Whooping Cranes were observed under excellent weather conditions from an initial distance of approximately 250 yards with the helicopter at an altitude of 200 feet. iii) From this distance the trailing black legs and black bill were observed iv) The Whooping Cranes were larger than the observed Sandhill Cranes, one of which was in flight and observed at approximately the same altitude and distance." Subsequent interviews with the observers convinced the author that this sighting was indeed genuine.

Four Whooping Cranes were observed by D. Beckett on 23 August, 1974, near Gillam, Manitoba. While driving in his car Mr. Beckett observed the four birds flying over the spruce woods at Mile 6 on the road from Gillam to Long Spruce. An avid student of ornithology, Mr. Beckett was quite confident in his identification of the birds. Subsequent questioning convinced the author that this too was an authentic report. A third report in the area was received.

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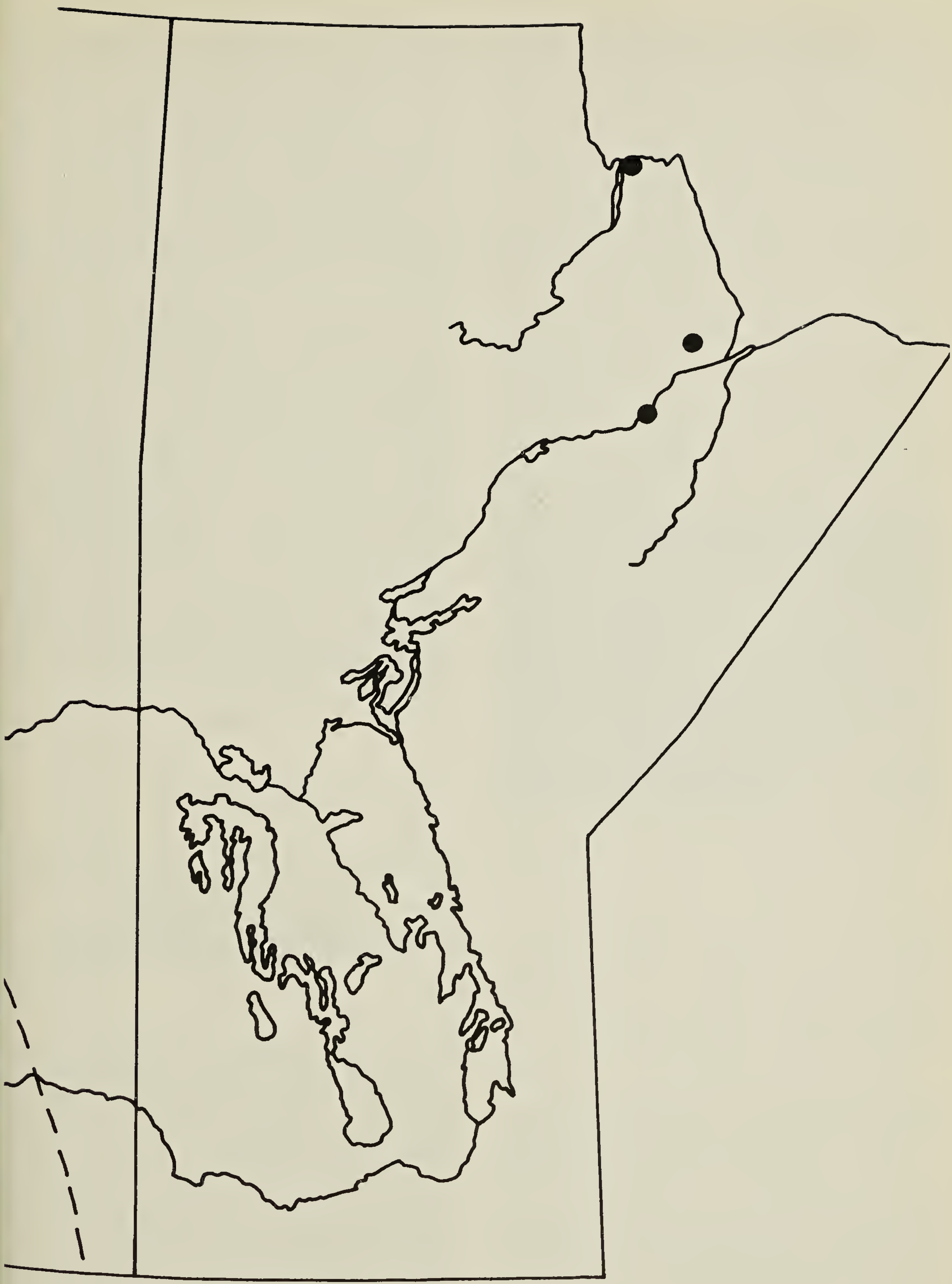
*Condensed from Manitoba Nature, Vol. 16, No. 3, Autumn, 1975. P. 34-39.



Locations of three confirmed sightings of Whooping Cranes in northern Manitoba.

Four Whooping Cranes were observed in the vicinity of Boots Creek near Gillam in late June. However, this documentation was lacking in sufficient detail. The map illustrates the locations of these sightings . . .

These recently recorded occurrences give rise to an interesting query in regard to their relation to southern Manitoba sightings. Studies of the breeding population on the Sass River nesting ground in Wood Buffalo

National Park indicate that only a portion of the total population breeds within the area. Other breeding pairs are dispersed in unknown regions outside the park. In addition, it was revealed that at sometime during their northward migration the young birds apparently leave the family group, as they are never found with their parents on the nesting grounds. Consequently every year there are both breeding and yearling birds residing in areas other than the park. The question remains where are they? To the north? The east? Are some breeding or summering in the northern portions of the Prairie Provinces? The nesting habitat has been described as marshy areas interspersed with numerous potholes which are generally shallow and have soft marly bottoms. Surely some regions in northern Manitoba fit this general description.

Nesting Whooping Cranes exhibit both a sensitivity to human disturbance and definite affinities to particular nesting areas. The population of Whooping Cranes nesting in a very small area in the Sass River region and the difficulties encountered in locating them clearly indicate how easily a few birds can be essentially swallowed up in the wilderness and successfully avoid detection. A large portion of northern Manitoba is similarly little-traversed and could quite possibly shelter nesting cranes or summering nonbreeding birds, providing adequate habitat were available.

Fairly regularly there are rumours and reports of Whooping Cranes in southern Manitoba. However, many of these sightings are of somewhat dubious nature. An inspection of reports filed with the Manitoba Department of Mines, Resources and Environmental Management revealed the majority of reports were lacking sufficient detail to confirm the sightings as Whooping Cranes. Others were obviously of other species similar in appearance. Reports of 30 Whooping Cranes in a single flock can most likely be attributed to observations of Sandhill Cranes. On the other hand, reports that seem tantalizingly accurate in their details have also been submitted. It is important that each of these reports be followed up as closely as possible to determine its authenticity.

Excluding the Sandhill Crane, there are three other bird species which, due to their color pattern, might possibly be mistaken as Whooping Cranes. Both the White Pelican and the Snow Goose display striking white and black colorations. The Snow Goose displays an outstretched neck but is considerably smaller and does not have trailing legs. The black of the Pelican is displayed in some of the secondary feathers as well as the primaries. The head hunched on the shoulders and lack of trailing legs further differentiate the large, impressive pelican from the equally striking Whooping Crane. The Whistling Swan is similar in both overall size and possession of a long slender out-stretched neck. However, it too lacks the trailing legs and is all-white in coloration. . .

SASKATCHEWAN CHRISTMAS BIRD COUNT 1976

The Christmas Bird Count period this year is Saturday, December 18, 1976, to Sunday, January 2, 1977, inclusive. List the number of each bird species seen on Count Day. List dates and number of bird species not seen on Count Day, but seen during Count period. The Count area should be a circle, 15 miles in diameter. For further examples and details see March 1976 *Blue Jay*. Send reports as soon as possible (by January 12, 1977 at latest) to:

Mrs. Mary I. Houston,
863 University Drive,
Saskatoon, Sask. S7N 0J8

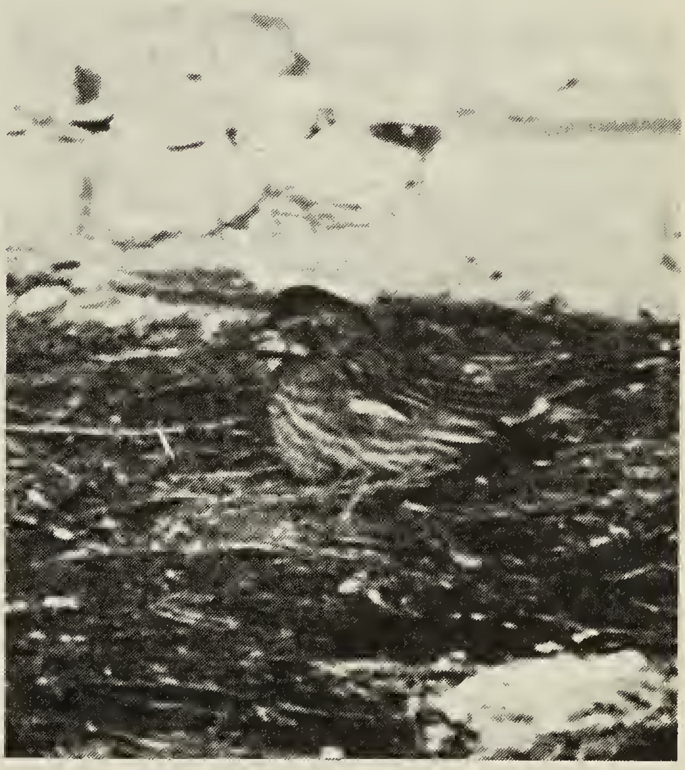
A WINTER LARK BUNTING IN WINNIPEG

RICHARD W. KNAPTON, Dept. of Zoology, University of Manitoba, Winnipeg, Man. R3T 2N2.

On the morning of December 2, 1975, I observed a Lark Bunting, either a female or first-winter male, foraging on a small snow-free patch of ground in the parking lot of the Univillage apartment block in Fort Garry, Winnipeg, Manitoba. The bird was photographed and was watched for several minutes as it searched for food, presumably weed seeds. When disturbed, it flew into a small poplar bluff beside the parking lot and perched rather unsteadily in a young poplar. Herbert W. R. Copland and others were notified of the sighting, but a search in the afternoon failed to turn up the bird.

The following day it was located by Brian Knudsen and myself on the same bare patch of ground and excellent views down to 5 metres were obtained. The bird was not found on December 4, but was present during the early morning of December 5, again on the same patch, and it was not seen after this date.

This is the first winter record of the Lark Bunting in Manitoba. The regular winter range of the species is from southern California, central Arizona and central Texas south, and late dates of fall departure from Saskatchewan and Alberta are in early September[1]. However, not only is this record remarkable in being extremely late, but also the Lake Bunting is a rare bird in the Winnipeg area at any time of the year. The species occurs frequently, if in irregular numbers, in the southwestern corner of the province as far north as Brandon and east to Cartwright[2] [4], but elsewhere in the province there are only 3 published sightings, of which only 2 are in the Winnipeg area, the third being at Grand Marais.[3] [5]



Lark Bunting, Winnipeg, Dec. 2, 1975.
R. W. Knapton

It is worth noting that the fall of 1975 was mild and fairly warm, the mild weather extending into November in Winnipeg, and this may have helped the bird to survive into December.

I thank Herbert W. R. Copland for information on past records of Lark Buntings in Manitoba.

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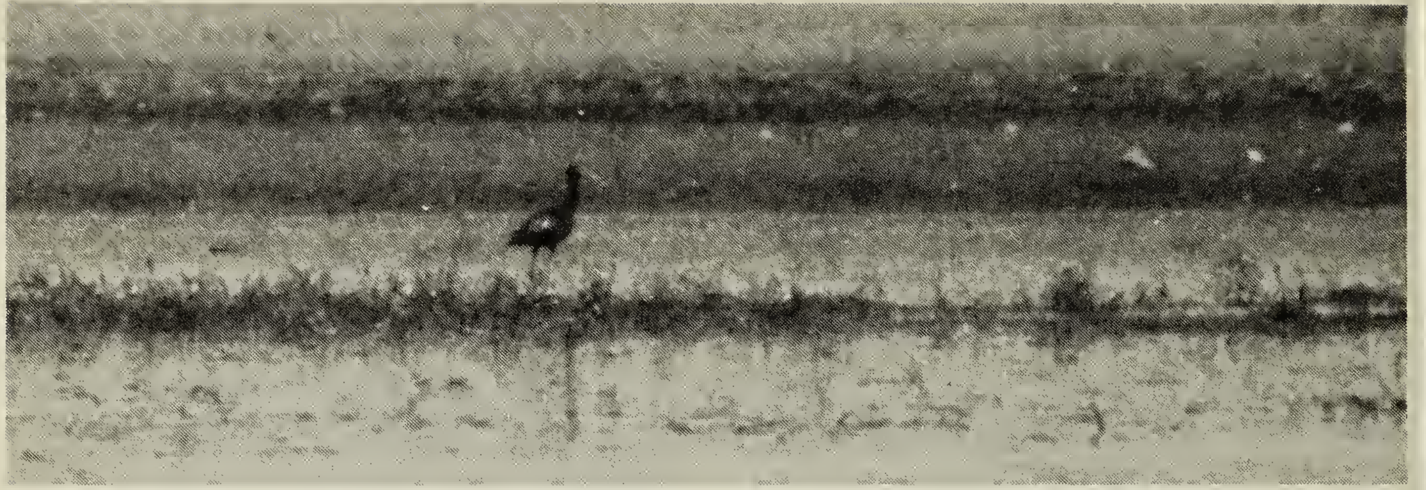
[2] HOSFORD, H. 1965. *Wild Wings.* Winnipeg Tribune, Winnipeg, January 12, 1965.

[3] LAWRENCE, A. G. 1934. *Chickadee Notes 688.* Winnipeg Free Press, Winnipeg, June 2, 1934.

[4] LAWRENCE, A. G. 1934. *Chickadee Notes 690.* Winnipeg Free Press, Winnipeg, June 16, 1934.

[5] MOSSOP, H. 1971. *Chickadee Notes 855.* Winnipeg Free Press, Winnipeg, July 31, 1971.



White-faced Ibis, Last Mountain Lake. May 30, 1976. Fred Lahrman

WHITE-FACED IBIS IN SASKATCHEWAN

FRED W. LAHRMAN, Saskatchewan Museum of Natural History, Regina, Sask.

On May 29, 1976, Mr. Bob Luterbach reported seeing a White-faced Ibis (*Plegadis chihi*) approximately 6 miles east of Stalwart near Last Mountain Lake. I believe that this constitutes the first sight record of this species for Saskatchewan.

Bob was observing a large flock of approximately 500 Red Knots and other shore birds when the ibis appeared.

On the following day Bob Luterbach, Dwayne Harty, Robyn Donison and I returned to the area hoping to see the ibis and photograph it. We found the bird in the same slough and good views were obtained from about 250 yards with the aid of a 20- to 60-power telescope. It was in full breeding plumage with the "white face" clearly evident, as well as the red eyes and facial markings. It appeared wary at first and flew a short distance on our arrival but later I was able to stalk it on foot close enough to obtain some photos.

On June 1, Frank Brazier and Bob Kreba studied the ibis in the same slough. It was not found when Luterback checked the area again on June 20.

W. Earl Godfrey in "Birds of Canada" 1966 gave the range of the White-faced Ibis as follows: "From central California, eastern Oregon, Colorado, Nebraska, southwestern Louisiana, and Florida (locally) south to Argentina and Chile. Status in Canada: Casual straggler to British Columbia."

There was evidence that the species may have bred at Pakowki Lake in southeastern Alberta and at Bowdoin National Wildlife Refuge, Montana, in 1975.[2] [1]

Bob Luterbach, Bob Kreba and I observed an ibis at the Benton Lake National Wildlife Refuge, near Great Falls, Montana, on July 2, 1976.

It would appear that the White-faced Ibis has extended its range northwards in recent years.

[1] SERR, ESTHER. 1975 *Northern Great Plains*, In The nesting Season June 1 — July 31, 1975. American Birds 29:995-999.

[2] SMITH, W. W., and C. A. WALLIS. 1976 *Preliminary investigation of the birds of Pakowki Lake, Alberta.* Blue Jay 34: 168-171.

Common Egret, Middle Quill Lake. June 30, 1976. Keith Roney

SECOND SASKATCHEWAN BREEDING RECORD FOR THE COMMON EGRET

KEITH RONEY, Museum of Natural History, Regina, Sask. S4S 0B3

During the summer of 1976, I conducted a survey of colonial birds for the Saskatchewan Museum of Natural History. At 4:30 p.m. on June 30, while surveying the Quill Lakes area, I noticed a large white bird standing on the south shore of Mud Lake (Middle Quill). It and a second white bird immediately took flight. Using my 7x35 binoculars, I identified the birds as egrets, however, they quickly flew around a point of land and disappeared before I could distinguish the species. I returned to the car for my camera and a 300 mm. telephoto lens, then walked around the point of land and spotted the egrets feeding in a bay. The long black legs and feet and yellow bill identified the birds as Common Egrets (*Casmerodius albus*). As they flew once again, I managed to get a few distant photos. After flying across the bay, they alighted on a tree already occupied by three other egrets.

I returned to the car and prepared to check the White Pelican and Double-crested Cormorant colonies on the north shore of the lake. I heard sounds coming from an aspen grove which I recognized as those of a Great Blue Heron colony. Since the wind was increasing, I decided to check the pelican and cormorant colonies before investigating the heronry.

On returning to the heronry (Sec. 10 T34 R16 W2), I was excited to discover the egrets nesting among the herons. The egrets were occupying two nests among the 19 active heron nests. Both egrets and herons appeared to be incubating. Pieces of broken eggshell were found lying at the base of the trees indicating that young were present. The calls of the young were also audible. As no young were observed, I was unable to determine whether there were egret young present. The egret nests were situated about 25-30 feet high in aspen poplar (*Populus tremuloides*). The egrets reacted aggressively to any approach by the larger herons. When a heron landed on a tree occupied by an egret nest, the egrets chased it off. During my short observation period, the herons did not appear to be aggressive to the egrets and tolerated them at close range.

I took a few photos of the birds at their nests but to prevent any further disturbance I did not climb up to check the contents. I was unable to return to the colony during the summer to check on nesting success. This also was the first time the heronry had been recorded for the province.

The only previous nesting record of the Common Egret was reported by E. L. Fox who, in September, 1955, confirmed the nesting site of this species in the Qu'Appelle Valley approximately 7 miles east of Craven.

There have been other reported sightings of the Common Egret for Saskatchewan but this is only the second breeding record.

[1] FOX, E. L. 1955. *Great American Egret.* Blue Jay 13(4): 7.

OSPREY - BALD EAGLE RELATIONSHIPS IN SASKATCHEWAN

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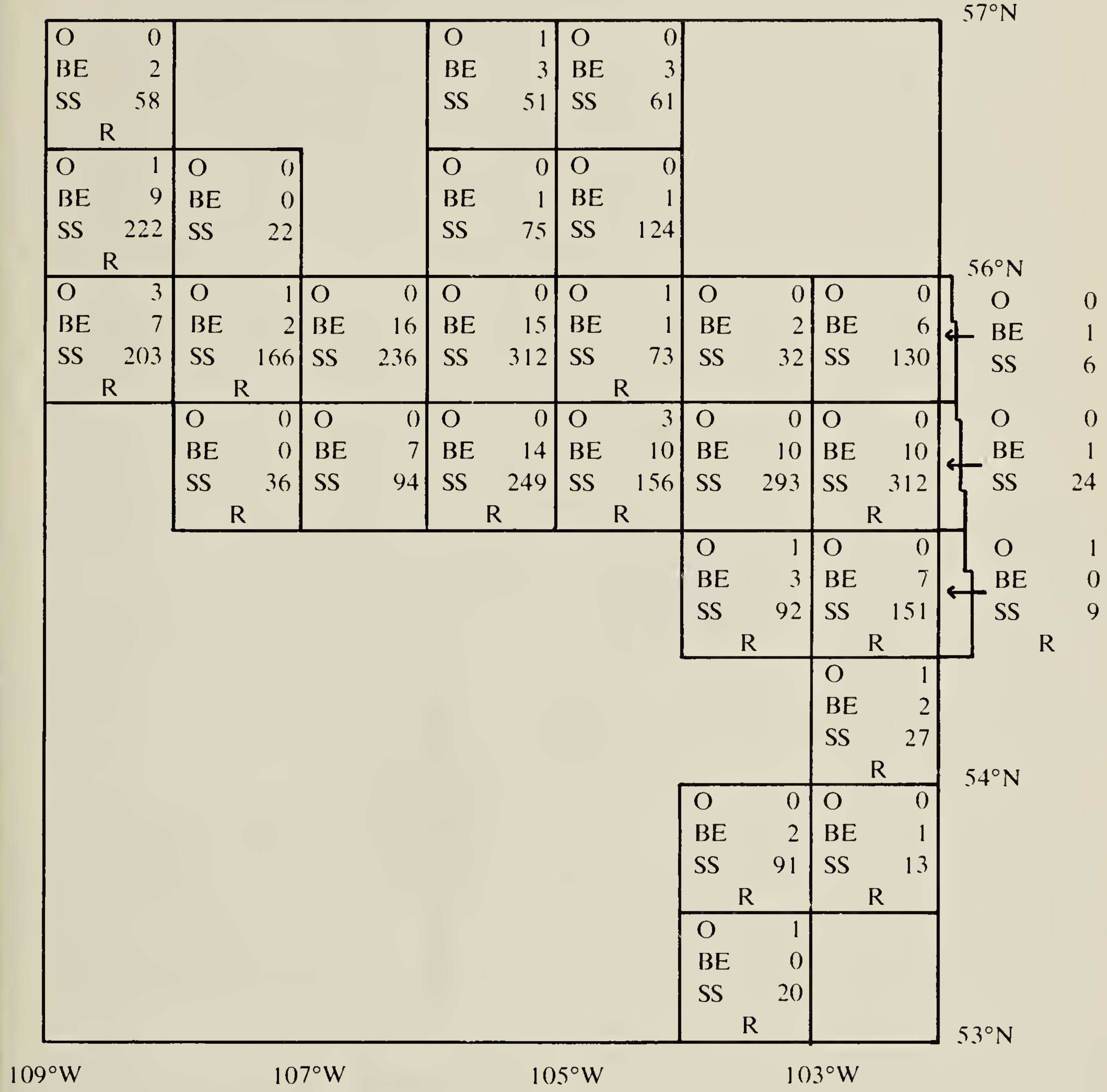
DOUGLAS W. A. WHITFIELD, Department of Botany, University of Alberta, Edmonton, Alberta. T6G 2E9;
WILLIAM J. MAHER, Department of Biology, University of Saskatchewan, Saskatoon, Saskatchewan. S7N 0W0

While reviewing Osprey nesting in northern Saskatchewan, one of us (JMG) suggested that Ospreys tend to be more tolerant of human disturbance than Bald Eagles, and may gradually partially replace eagles as roads are pushed farther into the forested areas of Saskatchewan. To test this hypothesis, we plotted all Osprey and Bald Eagle nests found on our aerial surveys of the boreal forests of central Saskatchewan and determined their relationship to roads. The study area is shown in Figure 1 and has been described in detail previously.[17]

We feel that our method allows a reasonable comparison between the two species in different regions, despite the fact that the Osprey nests were found on surveys for Bald Eagle nests, that eagles may be more conspicuous, and that a higher percentage of eagle than Osprey nests may be found along the shoreline routes. Each survey unit is a block of 30 minutes latitude measuring roughly 35 miles in a north-south direction and nearly 40 miles east-west. There are also three smaller survey units along the eastern Saskatchewan boundary. For each sur-

Fig. 1. The relative distribution of successful Bald Eagle (BE) and Osprey (O) nests in parts of north-central Saskatchewan covered by aerial surveys in 1969 and 1971. The number of miles of shoreline searched (SS) and the presence of a road (R) in each survey unit is shown.



vey unit, the graph (Figure 1) shows the number of active Osprey and Bald Eagle nests, miles of shoreline searched and the presence or absence of a road at the time of the survey.

In 10 of 16 survey areas with roads, we found 13 pairs of nesting Ospreys while searching 1,878 miles of shoreline. In contrast, we found only one pair of Ospreys along 1,462 miles of shoreline in 13 survey units with no roads.* In areas with roads, the ratio of Osprey to Bald Eagle nests was 13:70 (1:5.4), while in areas without roads the ratio was 1:66. The Loon Lake area, long interlaced with roads, has a reversed ratio of 15 active Osprey nests and no Bald Eagle nests, as reported by Scott and Surkan.[14] For the areas we surveyed, the increase in numbers of nesting Osprey is associated with a concomitant decrease in numbers of nesting Bald Eagles (Table 1). Attempts to relate the relative distribution of eagles and Ospreys to other geographic features including whether nests were north or south of the Precambrian Shield revealed no significant differences.

Our finding that Ospreys nest more frequently in areas where there is greater human influence than in more

Table I: The Relative density of successful Bald Eagle and Osprey nests in survey areas with and without roads.

	The number of successful breeding areas found per 1000 miles of shoreline searched	
	Survey areas with roads	*Survey areas without roads*
Bald Eagles	37.3	45.1
Ospreys	6.9	0.7
Total	44.2	45.8

remote areas is in accord with the pattern of Osprey and Bald Eagle associations seen in northwestern Ontario. Around Lake of the Woods, where there is considerable human activity, there are approximately equal numbers of Bald Eagles and Ospreys[6] [9], whereas north of Lake of the Woods where there are few roads relatively few Ospreys have been found.[6]

While the Ontario data and our Saskatchewan surveys support the thesis that Osprey nesting is related to human incursions, our Saskatchewan data suggest that additional factors are probably involved.[8] Ospreys have nested at two lakes, Cree Lake and Reindeer Lake, north beyond our survey routes. These large northern lakes are somewhat marginal habitat for Bald Eagles since they remain covered with ice for long after the eagles on the Churchill River have begun nesting. Ospreys, however, return to the northland closer to the time of breakup with its availability of fish (Figure 2).

We can thus revise our original hypothesis as follows:

1. In areas of high quality Bald Eagle nesting habitat, where human disturbance is minimal, nesting Ospreys are relatively rare as determined by our survey methods.
2. In areas where there is considerable human influence including roads, survey towers, power lines, and dams, Ospreys may be relatively common. Ospreys may also be present in areas of marginal Bald Eagle nesting habitat.

DISCUSSION: There is considerable overlap in the food and habitat requirements of Bald Eagles and Ospreys. Both species prey on live and dead fish,[2] [7] with an overlap in the fish species taken in Florida.[11]

Shoreline nest site requirements also overlap, with both species tending to nest close to the shores of lakes and rivers. Mathisen has pointed out that Bald Eagles nest in the more protected crotch of a large tree, whereas Ospreys nest in the more exposed tree top.[10]. In northern Saskatchewan, similarity in the nest sites of these two raptors is greater. Thus while Ospreys in both Saskatchewan and Minnesota nest only on the exposed tops of trees, rocks or man-made structures, and Bald Eagles

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[*] This difference is highly significant, with less than a one percent possibility that it could have occurred by chance ($x^2 = 7.8$, DF = 1, $p < 0.01$). If the data were analyzed using only those Osprey and Bald Eagle nests which we found for the first time, and omitting any nests which we had learnt about previously from others, the difference in Osprey nesting between survey units with roads and those without roads is still highly significant.

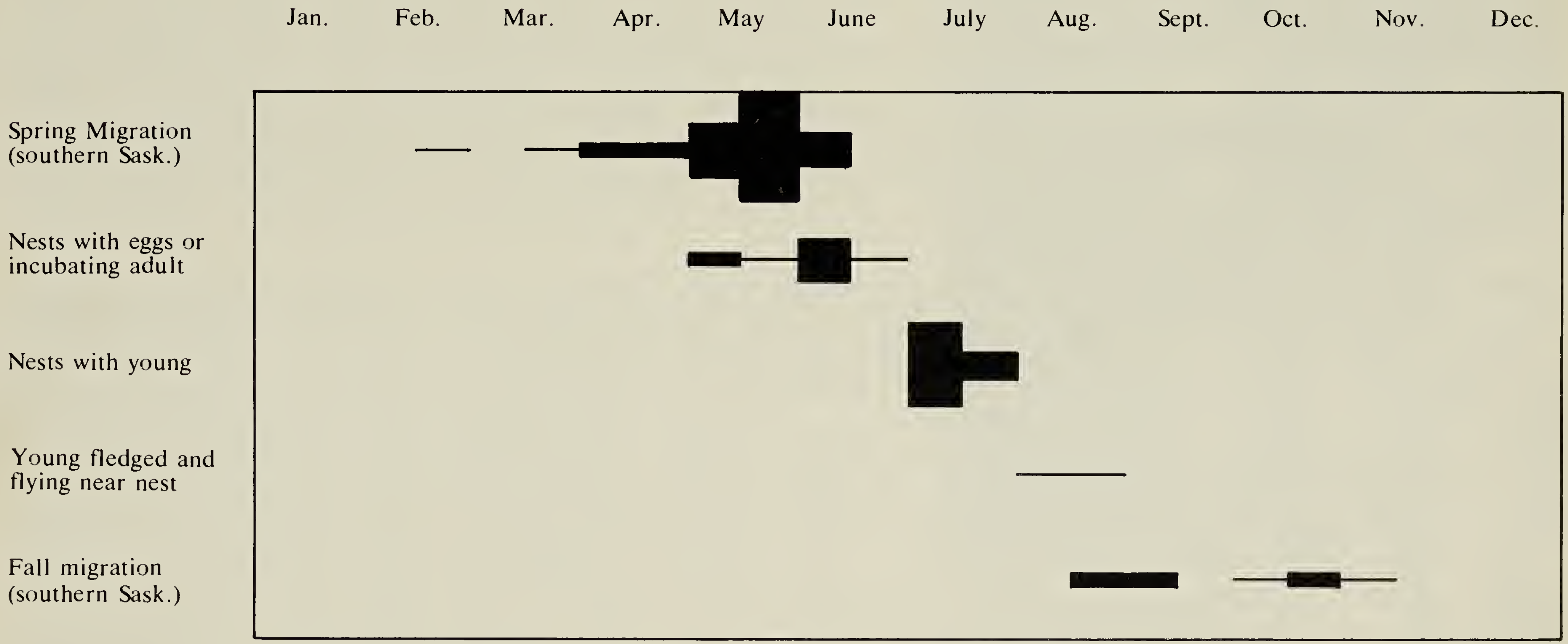

Fig. 2. The timing of migration and breeding of Ospreys in Saskatchewan.

are usually well below the top, it is also true that Saskatchewan Bald Eagles commonly nest on exposed tree tops.

In view of the overlap in the ecological niches of Osprey and Bald Eagles as we currently understand them, the lack of Ospreys in undisturbed areas where there is high quality Bald Eagle nesting habitat needs an explanation. A ratio of one Osprey to 66 successful Bald Eagle nests in such undisturbed high quality Bald Eagle habitat suggests that eagle dominance in such habitat in Saskatchewan is virtually complete. One possibility is that the degree of interspecies competition between the two species is greater than has hitherto been suspected and Ospreys are driven out of areas where eagles prefer to nest. Ogden has demonstrated clearly that such territorial competition between the two species can occur, and that eagles moving into an area can displace Ospreys and result in decreased Osprey nesting success.[12] In Saskatchewan neither raptor is a year round resident and the arrival of the Bald Eagle about a month ahead of the Osprey could certainly give it the advantage in the selection of prime territory and nest sites.

The result of such dominance would be that Ospreys are forced to nest in poor to marginal Bald Eagle habitat where they might have specific advantages. The following classification of Osprey nesting areas supports this viewpoint:

1. Areas with considerable human disturbance. Bald Eagles are very susceptible to human disturbance at the nest[1-4] whereas Ospreys are relatively less susceptible (Rob Hernandez pers. comm.).
2. Areas with man-made structures for nest sites. We have not found Bald Eagles nesting on man-made structures in Saskatchewan and such nesting is rare elsewhere. In contrast, Ospreys readily nest on geodesic survey towers, on power poles along the line from Flin Flon to Sherridon, Manitoba,[16] and on man-made platforms in Michigan.[13]
3. Areas with late thaws. Large bodies of water in northern Saskatchewan, such as Cree and Reindeer Lakes, are frozen for some time after Bald Eagles have begun nesting, and have no open water at rapids or where small streams enter the lake for eagles to fish early in spring.[5] Smaller lakes north of our study area, including Irvine, Lavigne and Swan Lakes may also fit into this category. Swenson, in Yellowstone National Park, also found that "Bald Eagle territories were limited by open water at the time of nest initiation", whereas "the presence of ice did not affect the placement of Osprey nests because they generally nested at the time of ice-out."[15]
4. Areas flooded by dams. The relative absence of Bald Eagles immediately upstream, certainly for the first fifteen miles above the Island Falls and Squaw Rapids dams in Saskatchewan has not been explained. Ospreys however, nest in these areas, and Ospreys are similarly common in floodings in Michigan and Wisconsin.[13]

Stuart Houston at Osprey nest.
Frank Scott

Young Osprey in nest. Stuart Houston

As an alternative to the above theory of a high degree of interspecific competition with the Bald Eagle dominant, we might consider whether the food or nest site requirements of the two species is sufficiently different to account for their relative distribution in northern Saskatchewan. Postupalsky mentions a requirement for clear shallow water for Osprey fishing,[13] while Swenson notes that Ospreys at Yellowstone Lake foraged mostly in deep water.[14] Both authors agree, however, that Ospreys take fish only from the top few inches of the lake. Bald Eagles do the same. Furthermore we can think of no obvious water quality differences between Lac La Ronge, Churchill, Peter Pond, Amisk, and Upper Foster Lakes where there are Ospreys, and Besnard, Pinehouse, and Black Bear Island Lakes where we have found none.

It may well be that Bald Eagles take more dead fish and that Ospreys prefer live fish, though we know that both take some of each. Such a preference would give eagles an advantage on lakes fished commercially, though Herrick states that many, if not most, of the fish caught by Bald Eagles during the breeding season may be alive.[7]

Bald Eagles are larger than Ospreys and may take larger fish. In a lightly fished area, where the fish tend to be larger, the Bald Eagle might have an advantage. In a heavily fished area, usually associated with a road, average fish size decreases and could confer an advantage to the Osprey.

Bald Eagles tend to fish more from shoreline perches or from glide pathways on updrafts along shoreline, while Ospreys spend relatively more time in flapping and hovering flight at a greater distance from shore. Ospreys might thus have an advantage on larger lakes.

The tendency of Ospreys to nest on man-made structures suggests that nest sites might be limiting. However, since one-fifth to one-third of Saskatchewan Bald Eagle nests are on the exposed top of spruce or jack pine trees — typical Osprey nest sites — this seems unlikely, unless one assumes inter-species competition. Finally, the small differences in nest site or fishing requirements discussed above, or as

Osprey overhead Frank Scott

yet unidentified habitat factors may play a more critical role than we presently appreciate.

We have thus far discussed two alternate hypotheses 1) interspecies competition and 2) availability of habitat and prey as possible explanations for the present distribution of Bald Eagle and Osprey nesting in northern Saskatchewan. The two hypotheses are not mutually exclusive and both may have contributed to the present situation. Our findings suggest that we may expect more Ospreys and fewer Bald Eagles as more roads and more people penetrate the prime Bald Eagle habitat of northern Saskatchewan, a suggestion that will be tested in the years to come. Of related interest are the increased sightings of Ospreys at Hawk Mountain, Pennsylvania in recent years, following the earlier decline in Bald Eagle sightings there.[11] Our present study provides a possible explanation for such a phenomenon.

ACKNOWLEDGEMENTS: We wish to thank C. Stuart Houston for constructive criticism and suggestions. Our studies have been supported financially by the Canadian Wildlife Service, the Institute of Northern Studies at the University of Saskatchewan and by the National Research Council through its grant to W. J. Maher.

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INGVALD OPSETH WILDLIFE REFUGE

One hundred and sixty acres of wood and marsh land in the Crystal Springs district were dedicated as the "Ingvald Opseth Wildlife Refuge" in a ceremony last Sunday afternoon. Tourism and Renewable Resources Minister John R. Kowalchuk and Odd Opseth, a brother of the late Ingvald Opseth, unveiled a cairn on Highway 20, 3 miles north of Crystal Springs to mark the 14th wildlife refuge in Saskatchewan. The quarter section of natural habitat is located at the north end of Dixon Lake, 12 miles southeast of Birch Hills . . .

"Mr. Opseth was truly concerned about wildlife," the Minister continued, "donating this land to ensure its protection". Kowalchuk pledged that the government would work to ensure the land serves the purpose for which he intended . . . "Mr. Opseth's donation is a wonderful gesture, and I hope it will encourage others to follow suit. What could be a greater legacy than leaving a piece of the world, as we know it, to our sons and daughters and their sons and daughters?" the speaker asked . . . — *From Kinistino (Sask.) Post, September 17, 1975. Courtesy of Mike Vikanes.*

COUGARS IN THE QU'APPELLE VALLEY

TOM WHITE, 2256 McIntyre St., Regina, Sask. S4P 2R9

The Qu'Appelle Valley stretches for approximately 200 miles in an east-west direction from the South Saskatchewan River to the Assiniboine River just inside the Manitoba border. Cougar reports along its length have continued for the last 30 years and there are rumours of further sightings prior to that date.

The first report in some detail is that of Wilfred Rainville who came upon a cougar in a stubble field north of Sintaluta in 1942. Joe Brown tracked a cougar near Tyvan in the winter of 1946 and Frank Brazier observed a cougar cub in 1960 on Boggy Creek near Regina. There are concentrations of reports in the Vermilion Hills where the Qu'Appelle joins the south Saskatchewan and at Craven, Katepwa and Rocanville. It should be noted that reports occur where good local communications exist, but this does not necessarily indicate where most cougar sightings occur.

The cub sighting in 1960 is close to where a pregnant female was noted by a railway crew 10 years later and this might indicate a denning area. Craven is at an intersection of valleys in four directions and if a 20-mile radius were taken from there, or any other point on the Qu'Appelle, it gives 1,000 square miles of creeks, coulees, trees and a substantial number of deer, the cougar's primary food. It is near this area that the latest reports have occurred.

George Polsom was driving to his ranch in the summer of 1975 when his headlights picked up an animal like a deer coming out of the ditch in front of his truck. He stamped on the brakes to avoid hitting it and realized that it was a cougar bounding across the road only 20 yards away. George was familiar with cougars in British Columbia though he had no prior knowledge of cougars in the Qu'Appelle. A few months later, he went to see his cattle at the drinking hole at 4 p.m. on a clear fall day. When he got 30 yards away, he found a cougar drinking and when he got 20 yards away, the cougar paused, looked at him and slowly walked away, with his long tail sloping behind.

In May, 1976, the Polsom's children saw a year-old buck with velvet antlers lying dead in an open field near their farm house. It had a puncture behind the neck and its neck had been flipped back and broken; a substantial amount of meat had been eaten from its side. The Polsom's carried the deer to the side of the road though the deer was subsequently carried by the predator to some nearby trees where it was further eaten. The next evening the Polsom's were gardening when they heard a loud unpleasant series of cat snarls "like a tom cat in the mating season". They looked towards the sounds and saw a cougar walking in the open field 75 yards away. Mrs. Polsom had a clear uninterrupted view and said it had a 4-foot long body, long tail and "it was beautiful". New tracks were found measuring 5 inches in diameter on the side of the road by the dead buck near where it had been carried into the bush. There have been a number of other cougar reports further east of the ranch.

Evaluating reports of cougar sightings is an important aspect of cougar research. People frequently use the term "cougar" indiscriminately for any large cat, and there is a tendency of some people to exaggerate. In the Polsom report the observation in the headlights is the least reliable as mistakes are most easily made when people are taken by surprise and have only a brief look. Uncertain light and driving conditions make mistakes easy.

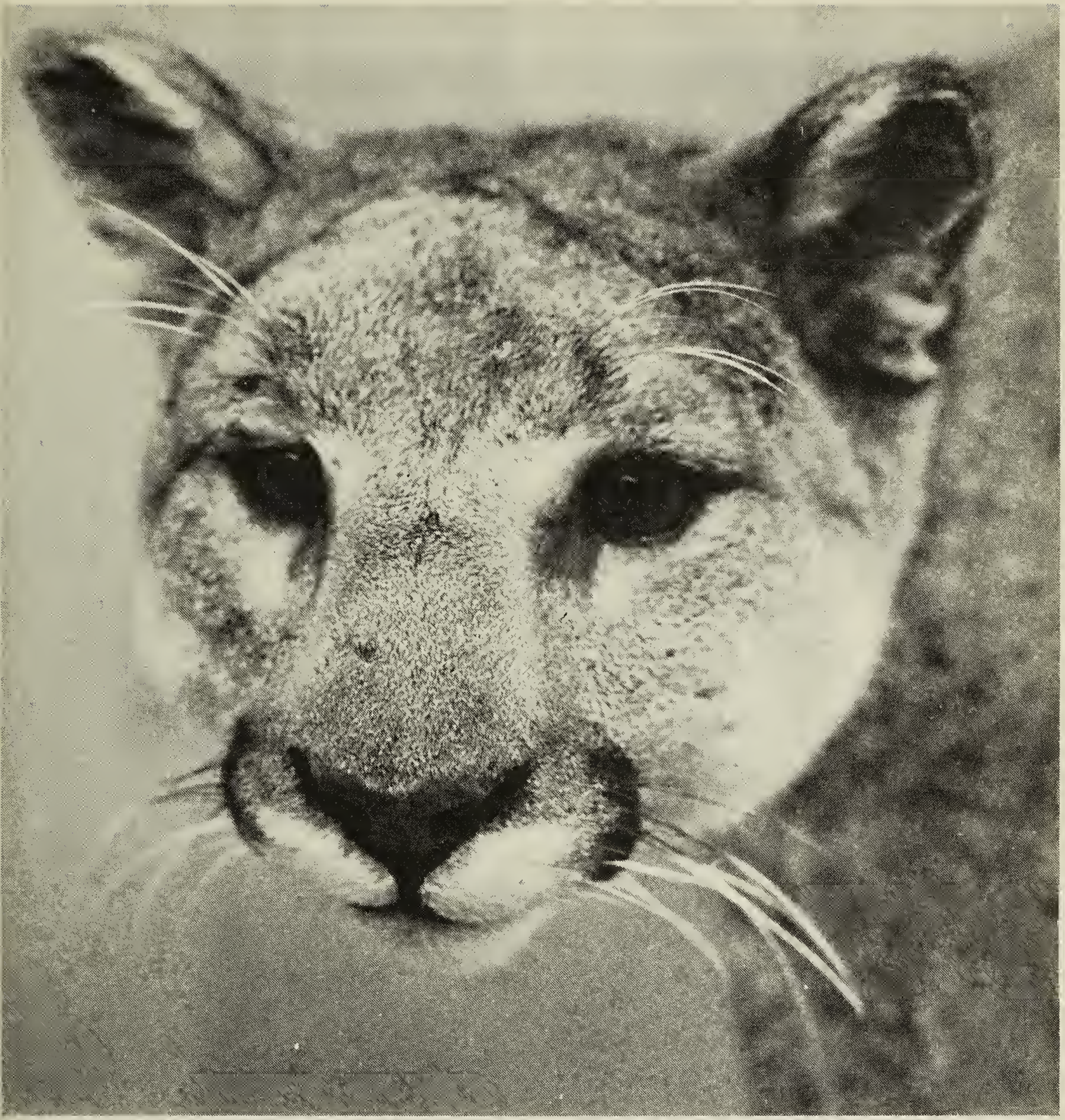
The report at the drinking hole is excellent as the sighting was at close range, a clear and uninterrupted view in good light, and it was a fairly lengthy sighting by a man familiar with cougars.

The deer was killed with a bite behind the neck and the neck flipped back and broken. The deer was subsequently carried off into the bush. This is a typical method for cougars to kill their prey. The carrying of the deer into the bush is very characteristic. Mrs. Polsom's report of the scream are similar to the other cougar screams in textbooks and in other parts of Saskatchewan. The most consistant comparison people make is that of a woman being murdered or strangled on the late night show. All reports emphasize the unpleasantness of the scream. In isolation it would be difficult to be certain that it was not a bobcat or a lynx as they can be loud at night but, as Mrs. Polsom saw the cougar in the open field for some time, it is an interesting corroboration of the cougar screams.

The cougar is described as having a long body and long tail, tawny in colour and as "beautiful". This is often used by people after a chance encounter. The track being 5 inches in diameter is probably the front foot of an adult male cougar. It should be noted that male tracks are larger than female and the front foot is larger than the rear. Female track diameters are normally 3-1/2 to 4 inches for the front foot.

This series of reports indicates one or more cougars occurred near the Polsom ranch in 1975 and 1976.

Reports along the Qu'Appelle, and other parts of the province, occur in all seasons of the year and go back in some cases before the turn of the century. This indicates a permanent resident population which has probably struck a balance with the local deer population. There are no means of relating one report to another as it may or may not be the same cougar. While reports occur over this extended area, it is not known how far a cougar ranges. Most contemporary research suggests the cougar ranges are relatively small though larger than that of bobcat or lynx.



Cougar. A mounted specimen. Gary Seib

Recently a young male cougar was killed 100 miles away from where it was tagged on Vancouver Island a month before. Possibly young males range widely in the mating season or when they are weaned and leave parental care looking for a territory. Young females may also range for some distance. There would seem little point in mature cougars ranging far from their territory when there is so much cover and prey species. Cougars with young are known to keep close to their denning area. The number of cougars in the Qu'Appelle must be few. It is probable that there are a number of small groups and an occasional young, free-ranging while searching for territory or mating.

The mysterious cougar will break cover periodically though specimens at Cutknife in 1975, Beau Sejour, Manitoba in 1973, Pasquia Hills in 1948 and the South Saskatchewan River in 1939 are all positive evidence of the presence of this rare prairie species. Consistent recording of cougar observations will improve our knowledge of this rare feline and how it lives in Saskatchewan.

CHRISTMAS MAMMAL COUNT 1976

For the 4th year, Wayne Harris will be compiling reports of mammals seen during the Christmas Bird Counts. When making your Christmas Bird Count, please note the number of each species of mammal seen and the species of tracks that you can positively identify. Last year 28 of the 52 bird counts reported 23 species of mammals. Send the results to Mary Houston, 863 University Drive, Saskatoon, S7N 0J8, by January 12, 1977.

LIVES IN NATURE

RON JAREMKO,
Saskatoon Public Library,
311 - 23rd St., Saskatoon, Sask. S7K 0J6

Some biographies and reminiscenses of naturalists, conservationists, ecologists, and other lovers of nature in the Saskatoon Public Library.

ANGIER, Bradford and Vena. *Wilderness Wife.* 1976. 177 pp. Brad and Vena, a city bred couple, return to a log cabin in the Canadian wilds, on the headwaters of British Columbia's Peace River.
917.11/A588w

BAKER, Richard St. Barbe. *My life — my trees.* 1970 . 180 pp. The story of a man who for over 50 years has devoted himself to one cause — that of persuading people to plant trees and preserve the forests. This campaign has taken him from the redwoods of California to the depths of Kenya.
B/B168m

BROCK, Stanley E. *Jungle cowboy.* c1972. 190 pp. The author of *Leemo* tells of his school days in England and of his initiation into ranch life. He also describes his encounters with such animals as jaguars, pumas, and ocelots.
B/B8647

BROOKS, Paul. *The house of life; Rachel Carson at work.* 1972. 350 pp. A strong, unsentimental yet affectionate study of a professional biologist who concluded that man could (and would) destroy his environment if he continued on his present course. She became responsible for the ecological movement.
B/C3215B

CARRIGHAR, Sally. *Home to the wilderness.* 1973. 330 pp. Carrighar has earned the esteem of fellow naturalists and the affection of her numerous readers for her beautifully written accounts of animal life. Her biography is a moving document of painful self-analysis and poetic reminiscence of her unfortunate childhood.
B/C316

CLARKE, Robert. *Ellen Swallow: the woman who founded ecology.* 1973. 276 pp. The extraordinary story of an extraordinary woman who, among other firsts, was the first person to be concerned with pure water, pure air, pure food, good soil, public health and other issues a hundred years ahead of her time.
Y/B/R514

COLLETT, Rosemary, K. *My orphans of the wild; rescue and home care of native wildlife.* 1974. 288 pp. A Florida woman, who for many years has treated wild mammals and birds that have been injured, diseased, or orphaned describes her methods in this reminiscence.
639.9/C698

COX, Donald William. *Pioneers of ecology.* 1971. 93pp. The lives and motivations of fifteen visionaries who pursued what were, at the time, unpopular causes. Some are well known, others less so, but all are now recognized as pioneer ecologists.
Y/574.509/C877

DURRELL, Gerald M. *Beasts in my belfry.* - 1973. 191 pp. Durrell resurrects his first year as an apprentice keeper at Whipsnade Zoo. An entertaining addition to the other numerous and anecdotal books the author has written.
B/D965Be

FLADER, Susan L. *Thinking like a mountain.* 1974. 284 pp. The odyssey that brought Aldo Leopold from his youth as an enthusiastic exterminator of predators to largely posthumous role as the foremost American exponent of the ecological view of things.

574.5/F573

HARTHOORN, Antonie M. *The flying syringe.* 1970. 287 pp. With veterinary training and university appointments in Uganda and Nairobi, Dr. Harthoorn became intensely interested in the conservation of Africa's wild animals and the study of their environmental biology. This narrative chronicles his research efforts.

639.9096/H328

LISTER-KAYE, John *The white island.* 1973. 178 pp. The story of Gavin Maxwell's last days and what happened to his plans and dreams is told by Lister-Kaye in a charming tribute to the versatility of nature and to the remarkable man who wrote *Ring of Bright Water.*

591.9412/L773

MORWOOD, William. *Traveler in a vanished landscape.* 1973. 244 pp. David Douglas was a botanical explorer, perhaps best remembered for the Douglas fir, yet he discovered or introduced hundreds of other plants. These are his adventures and observations as a botanical explorer.

B/D733m

SANDERSON, Ivan T. *Green silence: travels through the jungles of the Orient.* 1974. 263 pp. Ivan Sanderson fell in love with the natural world early in life and remained true to that life for all his days. This book, which is really the story of the making of a naturalist, covers the years spent collecting small mammals and insects throughout the islands of Indonesia.

574/5216

SANGER, Marjory. *Billy Bartram and his green world.* 1972. 207 pp. An interpretive biography of America's first native-born ornithologist which attempts to bring to life this fascinating contemporary of Franklin and Jefferson.

Y/B/B294

SHORTT, Terry. *Not as the crow flies.* 1975. 256 pp. An absorbing personal narrative of more than 40 years of field travel to the Galapagos, India, Africa, Ecuador, and other far-flung destinations by a noted Canadian painter of bird life and ornithologist.

500.9/5559

STODDARD, Herbert L. *Memoirs of a naturalist.* 1969. 303 pp. A long and productive lifetime devoted to the study and conservation of American flora and fauna is recalled. From a carefree Florida youth to later years in Georgia, Stoddard's deep love and understanding of nature is evident throughout.

B/S867

TEALE, Edwin Way. *A naturalist buys an old farm.* 1974. 306 pp. An observant and adventurous account of the life the Teales have lived on their enlarged farm in Connecticut. Crammed with detailed observations on trees, plants, flowers, and all manner of wildlife.

500.974645/T253

WAYRE, Philip. *Wind in the reeds.* 1965. 255 pp. A naturalist and a skilled photographer tells of his early love for nature and of the peculiar problems set him by the birds and animals he has watched, trained, photographed and lived with.

B/W359

WYATT, John. *The shining levels: the story of a man who went back to nature.* 1973. 210 pp. Wyatt, head warden of England's Lake District National Park, writes with love, humour, and occasional philosphical asides of his retreat to the Lake District and of the roe deer he raised there.

Y/B/W9755

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CHRISTMAS GIFTS

Blue Jay. $5.00 Four 64-page issues on the natural history of the Prairie Provinces and the Territories. Box 1321, Regina, Sask. S4P 3B8.

The birds of Alberta — with their ranges in Saskatchewan and Manitoba. W. R. and J. R. Salt. Hurtig Publishers, 10560 - 105 St. Edmonton, Alberta. T5H 2W7. Phone (403) 426-2508. 512 p. $10.00 cloth. The best regional work available! It covers 333 species, has 303 full-colour illustrations and 288 maps showing breeding ranges in Alberta, Saskatchewan and Manitoba. Both illustrations and maps are new and much superior to those in previous editions. A full page of text for each species gives description, field identification, world-wide and Prairie Province ranges, migration and breeding periods (for Alberta), habits and habitats. A good buy!

CLIFF SHAW AWARD

The Cliff Shaw Award is given annually to an author who has made a major contribution to natural history through an article in the *Blue Jay.* The 1976 winner is Jim Wedgwood for his story about Burrowing Owls in the March issue. Jim and his wife, Shirley, have demonstrated once again the significant role that amateur bird watchers can play in a field where the writing is dominated by professionals. Prior to their search, involving more than 5,000 miles of driving, no one suspected that 51 Burrowing Owl sites could be found in the area covered. Jim combined original observations, published information and humour into an interesting article that came complete with photographs and a map.

The Society congratulates him on his report and hopes that others will follow Jim and Shirley's example, even if their backyard does not extend 100 miles from home.

SNHS CONSERVATION AWARD 1976 — MARY SKINNER

Margaret Belcher presenting award to Mary Skinner. Gary Seib

I take great pleasure this evening in presenting to MARY SKINNER, on behalf of the Saskatchewan Natural History Society, the Society's Conservation Award for 1976. This award is given annually to a person who has made a significant contribution to conservation in Saskatchewan. It seems especially appropriate, therefore, that we should be honouring a woman who has spent her whole life very close to, and intelligently concerned about, the prairie landscape and its native flora and fauna.

Mary was born and raised on a farm at Indian Head, and in turn raised her own family in that rural community. On the Skinner farm in the beautiful Qu'Appelle Valley, there has been a long family tradition of interest in plants and animals and in protecting them. For years the "Skinner Flats" were a sanctuary for wildlife, and these lands have now been acquired by the Department of Tourism and Renewable Resources for a wildlife area.

Mary Skinner's intimate acquaintance with the world around her has made it possible for her to give help and encouragement to others. Young people have sought her out, and have been stimulated by her knowledge and enthusiasm. Under her leadership, a group of interested people at Indian Head organized a summer meeting there in 1971 for the provincial natural history society, and then decided to organize informally as the Indian Head Natural History Society. From 1971 to 1975 Mary Skinner was the Society's president. In that role, she continued to serve on the Board of SNHS, on which she had previously been a director.

Mary Skinner's dedication to the protection of our natural environment is also seen in her public activities in connection with the Qu'Appelle Valley. A member for some years of the Qu'Appelle Valley Development Association, she is now the SNHS representative on the Public Advisory Board to the Qu'Appelle Implementation Board. Although delightfully unassuming in her personal manner, Mary Skinner has for many years been making a strong and convincing contribution to conservation in Saskatchewan. — *Margaret Belcher.*

* * *

30 Years Ago

Notes from the Oct.-Dec., 1946, *Blue Jay* — 10 mimeographed pages: Membership in the Yorkton Natural History Society was 50 cents; this included a subscription to its publication, *The Blue Jay* . . . Walter Mathews of Nipawin discovered an Eastern Kingbird nest on a narrow ledge above the open door of his toolshed. It was in a nest built by robins about a week before . . . Evelyn Binnie of Tullis wrote that Lark Buntings "usually nest in the hayfields, but once we found a nest on the railroad tracks, underneath the rails between the ties. The female hatched and raised her brood there, too, but then we only had two trains a week" . . . Steve Mann of Skull Creek found a Marsh Hawk nest with three young and one egg 20 feet above the ground in an almond willow. The nest had been used by Swainson's Hawks for the previous 3 years . . . Pete Robinson of Nipawin snared and released an immature Bittern that had landed in the top of a jack pine . . . Mrs. E. Olsgard of Hazlet wrote that there were large numbers of Black Widow Spiders in her area . . . H. S. Swallow reported a brief aerial fight between a Great Horned Owl and a Snowy Owl . . . There were notes on bat migrations and bird reports by L. T. McKim of Melfort, F. G. Bard and L. T. Carmichael of Regina . . . Some band recoveries were also listed: two Black Ducks banded by Stuart Houston at Yorkton were shot the same fall in Ontario and Illinois. He also had Wigeon recoveries from the Dominican Republic and Cuba, a Bufflehead from Mexico and a Pintail from Alaska. In October Maurice Street trapped a White-throated Sparrow that had been banded the previous May in Indiana.

* * *

Letters

GREATER PRAIRIE CHICKEN

The article on "Settlements of the Grasslands and the Greater Prairie Chicken" has raised some questions for me because it stated that this bird required tall, ungrazed grass. We lived on the short grass prairie, 4-1/2 miles south and west of Snipe Lake, Sask., until 1926. We were around 9 miles as the crow flies north of the South Saskatchewan River, approximately T25, R22, W3rd.

We rode broncs to school, to round up our small herd of cows and the larger herd of horses that grazed on unbroken prairie at various times of the year (the cows when there was someone to keep an eye on them and the horses in spring, fall and winter).

There is one unprepossessing characteristic of a bronc — it never goes over anything it can go around, and it can sidestep faster than a tap-dancer. So frequently the more amateurish riders found themselves preceding their bronc or clinging to its ears as it stopped, sidestepped, and went ahead again to avoid gopher and badger holes, rocks and exploding Prairie Chicken. This was rolling country and we never saw the chickens until they took off with a whirr, frequently right under our pony's nose, The grass was very short but the chickens were able to hide in the slightly longer grass (4-6 inches probably) in the hollows.

They were still there when we left the area in 1926, but the country was being broken up rapidly then. It was more than 50% cultivated when we left. Maybe these birds did not breed in our area but came in after nesting as I never saw a nest and do not remember my father mentioning one and he didn't miss too much in the way of bird life. — *Mrs. John Hubbard*, Box 453, Grenfell, Sask. S0G 2B0.

Prairie Chicken calling. Fred Lahrman

ALBINO EVENING GROSBEAK AND SUMMER SNOW BUNTINGS

In late afternoon of February 9, 1976 Erling Glodes of Red Deer, Alberta, spotted an albino Evening Grosbeak at the Red Deer College Park in a flock of 75 to 80 grosbeaks. Mr. Glodes said he and his neighbours feed the grosbeaks every day but this was the first time he'd seen an albino grosbeak in the 18 years he had lived here. The bird was described as white with yellowish wings.

In July, 1975, I saw an unexpected sight: two Snow Buntings. They seemed different to me because of the white colour, black on back and dark sooty markings on the tail feathers. I got out my field guide and identified them as Snow Buntings in their summer plumage. These birds have never before been seen this far south of the Northwest Territories between April 30 and September 15. Then after the 15th of September they are plentiful until March and are gone by April 30. — *Helge S. Abrahamson*, Box 268, Sylvan Lake, Alberta. T0M 1Z0.

HUMMINGBERRY

Ruby-throated Hummingbird. R. J. Long

About August 5, 1976, my husband offered to go and pick the raspberries for me. I accepted quickly, as I was very busy with peas, beans, etc. We just have one row of raspberries and it is quite usual to see a "big one" you missed while picking on the other side. This was what happened. He saw a nice red berry; when he was going to reach his hand through, he noticed the leaves were gently moving, so he stayed quiet and tried to see why. It was a hummingbird hovering! Its beak was in a raspberry, apparently getting the juice, so my husband waited until the bird flew away. We were interested to know what it was doing so the place was marked. While the raspberry still remained on its stem, it just dried up completely. We have had quite a few hummingbirds around here but the last couple of years, haven't noticed any, until this one. Is this something different? It's just that we haven't seen it before. — *Mrs. Fred J. Webb,* Box 7, Pangman, Saskatchewan, S0C 2C0.

LOOKING BACK

This time it's for real! I am resigning as editor of the *Blue Jay.* In so doing, I want to thank the many people whose help over the last 4 years has resulted in 16 issues appearing. First and foremost there were more than 200 authors of articles, notes, letters and book reviews. At the same time I offer my apologies to those whose articles appeared late or not quite as they expected them. My thanks also to the many photographers who have supplied slides and photographs and for being patient through lengthy delays in my returning their material. Betty Carney of the Saskatoon Public Library kindly arranged for staff members — Muriel Dickson, Muriel Clancy, Diane Weir, Diane Sarich, Sheila Purse and Ron Jaremko — to provide annotated lists of some 400 books. Once all this material was in, it was reviewed by specialists in their respective fields, Robert Nero, Vern Harms, Ed Driver, Merv Atton, Ron Hooper, Stan Rowe and Dick Fyfe. Their conscientious work has been much appreciated. Galleys have been read by Bill Richards and Molly Denson for the 4 years; other proof readers, who always worked on short notice, have been Thelma Pepper, Jean Meston, Pat Adams, Sandie Shaver and Mark Abley. Pasteups of galleys into *Blue Jay* pages have been done by Gary Seib, Ann Jeffries and Ed Driver. Throughout my editorship Lorne Scott and his assistants in Regina have handled the mailing of each issue. Stuart Houston and Jim Wedgwood have helped in other ways. Charlie Martin, Harold Mitchelmore and John Oliver at Midwest Litho, the printers, have always been helpful and patient with us. To all of these hard-working volunteers, my thanks.

Gary Seib is the new editor and I can assure past and future authors that he will give them better treatment than they received from me. — *Bernie Gollop.*

SASKATCHEWAN NATURAL HISTORY SOCIETY

Financial Statement — Year Ending September 30, 1976

INCOME			
Memberships (including sales of *Blue Jay*)		$10,350.30	
Memberships (extra re: supporting and sustaining)		2,341.51	$12,691.81
Spec. Pub. No. 1 Guide to Sask. Mammals	$ 3.00		
Spec. Pub. No. 2 Birds of Sask. River	Out of print		
Spec. Pub. No. 3 Birds of Regina	10.70		
Spec. Pub. No. 4 Blue Jay Index (1942-60)	14.00		
Spec. Pub. No. 5 Birds of Lake Athabasca	16.00		
Spec. Pub. No. 6 Birds of N.E. Saskatchewan	63.20		
Spec. Pub. No. 7 Birds of Moose Mountain	58.50		
Spec. Pub. No. 8 Blue Jay Index (1961-69)	147.25		
Spec. Pub. No. 9 Birds of Rosetown-Biggar	412.75		
Publication — Hours and the Birds	NIL		
Publication — Birds of the Elbow	NIL	725.40	
Donations — General		1,207.66	
Interest (Savings account and bonds)		920.55	
Sales from Blue Jay Bookshop	5,747.03		
Less: Cost of sales	4,146.02		
Gross profit (27.9% of sales)	1,601.01		
Less: Postage, supplies, etc.	231.03		
Honoraria	548.00		
Net Profit (14.3% of sales)		821.98	3,675.59
			16,367.40
EXPENSE			
Printing of *Blue Jay* (4 issues)	8,409.43		
Less: Donation for colour pages	329.25	8,080.18	
Adv. and promotion: Newsletter (2 issues)	1,215.51		
Re: Grasslands Park	184.86	1,400.37	
1975 Annual Meeting (Yorkton)		203.50	
Honoraria ($600.00, $200.00)		800.00	
Postage		454.98	
Office supplies and stationery		94.30	
Office equipment: address plates	130.91		
repairs	54.31	185.22	
Affiliation fees		50.00	
Miscellaneous office and admin. expense		208.65	11,477.20
EXCESS OF INCOME OVER EXPENDITURE			4,890.20

Statement of Assets and Liabilities at September 30, 1976

ASSETS			
Cash on hand (Bookshop)			$ 40.00
Cash in bank (chequing) — SNHS		$ 8,041.04	
— Bookshop		892.12	
Cash in bank (savings) — SNHS		6,398.64	15,331.80
Canada Savings bonds			5,000.00
Stock on hand (Bookshop)			2,607.31
Accounts receivable — ($322.61 less prepaid orders $26.87)			295.74
Deposits with Postal Department $100.00, $150.00			250.00
			23,524.85
LIABILITIES			
Trust Fund re: Sanctuaries and Conservation Areas			
Balance at September 30, 1975		4,420.90	
Big Gully Sanctuary — 1976 lease and taxes	$528.39		
Less donations	260.00	268.39	4,152.51
Sandhill Crane Migration Camp			
Balance at September 30, 1975			40.75
Province of Sask. — Grant for Special Publication			1,000.00
Individual donation for Special Publication			454.78
Accounts Payable — Owing re: September 1976 *Blue Jay*			2,188.15
Donation for colour pages in *Blue Jay*			200.00
Owing re: Honoraria			225.22
Suspense account			11.50
Education tax			1.11
NET WORTH			
Balance at September 30, 1975		10,360.63	
Plus surplus for year ending September 30, 1976		4,890.20	15,250.83
			23,524.85

SASKATCHEWAN NATURAL HISTORY SOCIETY

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